Official Transcript of Proceedings

Before the

UNITED STATES POSTAL RATE COMMISSION

In the Matter of:

POSTAL RATE AND FEE CHANGES

Docket No.

R97-1

VOLUME 16

OFFICE OF THE SECRETARY OFFICE OF THE SECRETARY

DATE:

Wednesday, December 3, 1997

PLACE:

Washington, D.C.

PAGES:

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1250 I St., N.W., Suite 300 Washington, D.C. 20005 (202) 842-0034

BEFORE THE POSTAL RATE COMMISSION
X
In the Matter of: :
POSTAL RATE AND FEE CHANGES : Docket No. R97-1
X
Third Floor Hearing Room
Postal Rate Commission
1333 H Street, N.W.
Washington, D.C. 20268
Volume 16
Wednesday, December 3, 1997
The above-entitled matter came on for hearing,
pursuant to notice, at 9:32 a.m.
BEFORE:
HON. EDWARD J. GLEIMAN, CHAIRMAN
HON. GEORGE W. HALEY, VICE CHAIRMAN
HON. W. H. "TREY" LeBLANC, III, COMMISSIONER
HON. GEORGE A. OMAS, COMMISSIONER

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1	C	'	ENTS		1
2		IRECT		D む	DECDOCC
		IKECI	CROSS	REDIRECT	RECROSS
3	DONALD M. BARON				
4	BY MR. COOPER	7854			
5	BY MR. VOLNER		7868		
6	DANIEL TALMO				
7	BY MR. ALVERNO	7883			
8	BY MR. THOMAS		7912		
9	BY MR. ALVERNO			7960	
10					
11	DOCUMENTS TRANSCRIBED I	NTO THE	RECORD:		PAGE
12	Designation of Written	Cross-E	Examination	ı	
13	of Donald M. Baron, U	SPS-ST-	53		7857
14	Designation of Written	Cross-E	Examination	1	
15	of Philip A. Hatfield	, USPS-	T-25		7876
16	Designation of Written	Cross-E	Examination	ı	
17	of Daniel Talmo, USPS	-ST-50			7887
18					
19	E	хні	B I T S		
20	EXHIBITS AND/OR TESTIMO	NY		IDENTIFIED	RECEIVED
21	Supplemental Testimony	and Exh	nibits		
22	of Thomas W. Harahush	, Exhib	oit No.		
23	USPS-ST-49			7851.	7851
24					

1	EXHIBITS [conti	nued]	
2	EXHIBITS AND/OR TESTIMONY	IDENTIFIED	RECEIVED
3	Supplemental Testimony and Exhibits		
4	of Paul M. Lion, Exhibit No.		
5	USPS-ST-51	7852	7852
6	Supplemental Testimony and Exhibits		
7	of David E. Treworgy, Exhibit No.		
8	USPS-ST-52	7853	7853
9	Supplemental Testimony and Exhibits		
10	of Donald M. Baron, Exhibit No.		
11	USPS-ST-53	7855	7855
12	Designation of Written Cross-		
13	Examination of Donald M. Baron,		
14	USPS-ST-53		7856
15	Library References H-136, H-137,		
16	H-138, H-139, H-140, H-141,		
17	H-142, H-143, H-189, H-225,		
18	and H-289	7868	7868
19	Designation of Written Cross-		
20	Examination of Philip A. Hatfield,		
21	USPS-T-25		7875
22	Supplemental Testimony and Exhibits		
23	of Daniel Talmo, Exhibit No.		
24	USPS-ST-50	7885	7885
2 -			

1	EXHIBITS [conti	.nued]	
2	EXHIBITS AND/OR TESTIMONY	IDENTIFIED	RECEIVED
3	Designation of Written Cross-		
4	Examination of Daniel Talmo,		
5	USPS-ST-50		7886
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- 2 [9:32 a.m.]
- 3 CHAIRMAN GLEIMAN: Good morning.
- 4 Today, we continue hearings on Docket R97-1, the
- 5 Postal Service request for changes in rates and fees.
- 6 Postal Service witnesses Harahush, Lion, Treworgy, Baron,
- 7 Talmo and Hatfield have been scheduled to appear today.
- 8 Does any participant have a procedural matter they
- 9 would wish to raise before we begin this morning?
- 10 [No response.]
- 11 CHAIRMAN GLEIMAN: No participant has requested
- 12 cross-examination of our first witness, Thomas W. Harahush,
- who sponsored testimony identified as USPS-ST-49.
- 14 Mr. Hollies, if you have a signed statement of accuracy from
- 15 the witness, you can proceed to move for the admission of
- 16 Mr. Harahush's testimony and exhibits.
- 17 MR. HOLLIES: I'm not sure I caught all of what
- 18 you said. You want me to make a formal motion?
- 19 CHAIRMAN GLEIMAN: Well, we can either put the
- 20 witness on the stand and do it or if you have a signed
- 21 statement of accuracy from the witness?
- 22 MR. HOLLIES: I do have such a statement. And I
- 23 have two copies of the testimony prepared.
- And I guess the Postal Service moves USPS-ST-49,
- 25 the supplemental testimony of Thomas W. Harahush on behalf

1	of the United States Postal Service into evidence.
2	CHAIRMAN GLEIMAN: Are there any objections?
3	[No response.]
4	CHAIRMAN GLEIMAN: Hearing none, Mr. Harahush's
5	testimony and exhibits are received into evidence and, as is
6	our practice, they will not be transcribed into the record.
7	[Supplemental Testimony and
8	Exhibits of Thomas W. Harahush,
9	Exhibit No. USPS-ST-49, was marked
10	for identification and received
11	into evidence.]
12	CHAIRMAN GLEIMAN: Likewise, there has been no
13	request for oral cross-examination of witness Lion. And I
14	guess we can attempt the same if you have a signed statement
15	of accuracy from the witness, you can proceed to move the
16	admission of Mr. Lion's testimony and exhibits.
17	MR. HOLLIES: We do have signed statements, signed
18	declarations of accuracy for what's been designated as
19	USPS-ST-51, the supplemental testimony of Paul M. Lion on
20	behalf of United States Postal Service and, at this time,
21	the Postal Service moves that this be admitted into
22	evidence.
23	CHAIRMAN GLEIMAN: Are there any objections?
24	[No response.]
25	CHAIRMAN GLEIMAN: Hearing none, Mr. Lion's

1	testimony and exhibits are received into evidence and, as is
2	our practice, they will not be transcribed into the record.
_	[August and a to a t

3 [Supplemental Testimony and

4 Exhibits of Paul M. Lion, Exhibit

5 No. USPS-ST-51, was marked for

6 identification and received into

7 evidence.]

- 8 CHAIRMAN GLEIMAN: We also have had no request for
- 9 cross-examination, oral cross-examination of Witness David
- 10 E. Treworgy. And that is with respect to his testimony,
- 11 USPS-ST-52. Let me note that -- back up for a moment and
- note that Mr. Lion's testimony was ST-51.
- With respect to Mr. Treworgy's testimony, ST-52,
- 14 if you have a signed statement of accuracy, we can move that
- 15 material into evidence also.
- 16 MR. HOLLIES: We do. We have signed declarations
- 17 by Mr. Treworgy and, at this point, the Postal Service moves
- that what's been designated as USPS-ST-52, the supplemental
- 19 testimony of David E. Treworgy on behalf of United States
- 20 Postal Service be admitted into evidence.
- 21 CHAIRMAN GLEIMAN: Are there any objections?
- [No response.]
- 23 CHAIRMAN GLEIMAN: Hearing none, Mr. Treworgy's
- 24 testimony and exhibits are received into evidence. As is
- our practice, they will not be transcribed.

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1	[Supplemental Testimony and
2	Exhibits of David E. Treworgy,
3	Exhibit No. USPS-ST-52, was marked
4	for identification and received
5	into evidence.]
6	There are no requests for written or oral
7	cross-examination of Witness Treworgy. He did, however,
8	provide a response to Presiding Officer Information Request
9	Number 5, Question 17, that should be added to the record.
10	I believe that answer relates to his earlier testimony and I
11	will include it with institutional and other responses
12	provided after sponsoring witnesses have completed their
13	cross-examination.
14	I understand that the only participant requesting
15	oral cross-examination of Witness Hatfield, who is scheduled
16	to appear last today, has told the Postal Service counsel
17	that it no longer wishes to cross-examination. Witness
18	Hatfield is scheduled to respond to additional questions
19	concerning USPS-T-25.
20	There is designated written cross-examination for
21	Witness Hatfield. If you have a signed statement of
22	accuracy from Witness Hatfield, we can proceed to move the
23	admission of his responses to the designated written
24	cross-examination at this point in time.
25	MR. TIDWELL: A signed statement of accuracy is on

- 1 its way and we may have to postpone moving this in for the
- 2 moment.
- 3 CHAIRMAN GLEIMAN: We will get back to that one,
- 4 then.
- 5 MR. HOLLIES: For the record, Mr. Chairman, the
- 6 supplemental testimony of Witnesses Treworgy and Lion does
- 7 include the library references which are the subject of
- 8 those respective testimonies.
- 9 CHAIRMAN GLEIMAN: Thank you, Mr. Hollies.
- 10 That brings us to Witness Donald M. Baron who has
- already appeared for cross-examination concerning USPS-T-17.
- Today, he is presenting USPS-ST-53 and cross-examination
- will be limited to matters related to that testimony.
- 14 Mr. Baron is already under oath. Mr. Cooper, if
- 15 you would offer his supplemental direct testimony including
- 16 any necessary corrections?
- 17 MR. COOPER: Okay, we'll do that through the
- 18 witness on the stand so I call Mr. Baron to the stand.
- 19 CHAIRMAN GLEIMAN: Thank you.
- 20 Whereupon,
- 21 DONALD M. BARON,
- 22 a witness, was called for examination by counsel for the
- 23 United States Postal Service and, having been previously
- 24 duly sworn, was examined and testifed as follows:
- 25 DIRECT EXAMINATION

1	BY	MR.	COOPER:

Q Mr. Baron, I have set before you two copies of a

document entitled "Supplemental Testimony of Donald M. Baron

- on Behalf of the United States Postal Service, " marked for
- 5 identification as USPS-ST-53. Do you see those?
- 6 A Yes, I do.
- 7 Q Are you familiar with this document?
- 8 A Yes, I am.
- 9 Q Was it prepared by you or under your direct
- 10 supervision?
- 11 A Yes, it was.
- 12 Q If you were to be giving testimony orally today,
- is this the testimony that you would give?
- 14 A Yes, it is.
- MR. COOPER: Mr. Chairman, I ask that this
- testimony be admitted into evidence, and my colleague will
- 17 hand two copies to the reporter.
- 18 CHAIRMAN GLEIMAN: Are there any objections?
- 19 Hearing none, Mr. Baron's testimony and exhibits are
- 20 received into evidence, and I direct that they be accepted
- 21 into evidence, and as is our practice, they will not be
- 22 transcribed.
- 23 [Supplemental Testimony and
- 24 Exhibits of Donald M. Baron,
- 25 Exhibit No. USPS-ST-53, was marked

1	for identification and received
2	into evidence.]
3	CHAIRMAN GLEIMAN: Mr. Baron, have you had an
4	opportunity to examine the packet of designated written
5	cross examination that was made available to you earlier
6	today?
7	THE WITNESS: Yes, I have.
8	CHAIRMAN GLEIMAN: If these questions were asked
9	of you today, would your answers be the same as those you've
10	previously provided in writing?
11	THE WITNESS: Yes, they would.
12	CHAIRMAN GLEIMAN: I'm going to provide two copies
13	of that material to the reporter and direct that they be
14	accepted into evidence and transcribed into the record at
15	this point.
16	[Designation of Written
17	Cross-Examination of Donald M.
18	Baron, USPS-ST-53, was received
19	into evidence and transcribed into
20	the record.]
21	
22	
23	
24	

BEFORE THE POSTAL RATE COMMISSION WASHINGTON, DC 20268-0001

Postal Rate and Fee Changes, 1997

Docket No. R97-1

DESIGNATION OF WRITTEN CROSS-EXAMINATION
OF UNITED STATES POSTAL SERVICE
WITNESS DONALD M. BARON
(USPS-ST53)

<u>Party</u>

Interrogatories

Advertising Mail Marketing Association

AMMA/USPS-H113-1-5

Respectfully submitted,

Margaret P. Crenshaw

Secretary

INTERROGATORY RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS DONALD M. BARON (ST53) DESIGNATED AS WRITTEN CROSS-EXAMINATION

Interrogatory:	<u>Designating Parties:</u>
AMMA/USPS-H113-1	AMMA
AMMA/USPS-H113-2	AMMA
AMMA/USPS-H113-3	AMMA
AMMA/USPS-H113-4	AMMA
AMMA/USPS-H113-5	AMMA

The FY1996 study contained in LR-H-113 was based on a sample of 4,817 observations (page 6). Please describe in detail the design and execution of the sampling study including, but not limited to:

- a. The study objectives;
- b. The universe of study;
- c. The frame:
- d. Stratification;
- e. Sample size by stratum;
- f. The assumed standard deviations of the variables and desired reliability of the estimates that were used in determining the sample size(s);
- g. Who designed and carried out the study; and,
- h. The period of time over which the observations were taken.

RESPONSE:

MODS offices are facilities that report data electronically to the Postal Service corporate database through the Management Operating Data System (MODS). The 4,817 observations described on page 6 of LR-H-113 represent records from the population of all MODS offices that reported work hours and volumes for certain mail processing operations in accounting periods FY 1996-AP1 through FY 1996-AP13. These observations do not represent a sample of facilities, but rather represent the entire universe of such MODS offices.

Therefore no sampling "study" was undertaken, and no sample design was required.

For the results of the FY1996 sample that are presented on pages 100-102 of LR-H-113, please provide the following:

- a. Source(s) for the variabilities (Column F);
- b. The number of observations and standard error due to sampling for each line in Columns C through G and J of the table on pages 100-102; and,
- c. Explain any "non-sampling" errors that may occur in these estimates and not be reflected in the standard errors stated in part b (e.g., accounting errors in population totals and differences in time periods).

RESPONSE:

- a. See USPS-T-14, pg. 9, Table 1.
- b. This question is not applicable. The FY 1996 MODS data set used to derive the results presented on pages 100-102 of LR-H-113 is not a sample drawn from a larger population of MODS data. Instead, it constitutes the population itself. In particular, the 4,817 observations in this data set on workhours and volumes by operation were obtained from the population of all MODS sites over all accounting periods in FY 1996.
- c. Non-sampling errors may result from inaccurate measurements of the actual volumes processed or workhours expended by a given site in a given operation.

The "RBCS Keying Productivity" reported on page 10 of LR-H-113 was revised on 08/18/97.

- a. Please confirm that the <u>only</u> difference between the original and the revision of this page was the change of time period from FY96Q4 to FY96 Annual;
- b. If you cannot confirm part a, please provide a complete explanation of all changes;
- c. Please provide the 95% confidence limits on the three estimates (images, hours and productivity) for both the original and the revised pages including the sources for these calculations.

RESPONSE:

- a. Confirmed. After the initial version of LR-H-113 was filed, a page 10a was inserted into it, showing alternative productivity calculations based on annual FY 1996 numbers.
- b. Not applicable.
- c. 95% confidence intervals are only defined for estimates of population statistics, such as means and ratios, which are derived from samples of population values. The images, hours, and productivity averages reported in LR-H-113 are themselves population statistics. They are derived from the population of FY 1996 observations for these variables.

Pages 2 and 5 of LR-H-113 state that the SAS procedure "...PROC UNIVARIATE" is used to analyze the distribution of the productivities and that the highest 1% and the lowest 1% of the sampled productivities were eliminated as outliers.

Please explain why there was an automatic elimination without inspection of the individual extreme observations?

RESPONSE:

It is very difficult, if not impossible, to determine through simple visual inspection, an operationally feasible upper or lower bound for the productivity of any given operation. Engineers have no standards that define the exact productivity, or even a reasonably narrow range of productivities, that define the upper or lower bounds of what is considered reasonable. Given this uncertainty, operations experts at the Postal Service have agreed that the elimination of productivities that fall outside the upper and lower 1% tails of the distribution of all observed productivities is a sensible way to eliminate values that are clearly and unequivocally outside the bounds of reason. In addition, this tails test approach can be efficiently implemented over the large numbers of operations for which separate productivity data sets have been produced.

USPS Witness Daniel (USPS-T-29 at 4 line 11) references USPS LR-H-113 as the source of "non-class specific FY97 MODS barcode sorter accept rates.."

a. For each parameter estimated in LR-H-113 and used in USPS-T29 Appendix I pages 40 or 43 or used to derive any values on these pages, please complete the following table and the exact paired references (cross walk) between the source and use of each parameter:

Source: LR-H-113

Use: USPS-T-29 Appendix I

Parameter	Location		Standard	Name	Location (and derivation if derived)
<u>Name</u>	(Page, Line, Column,	etc.) Value	Deviation	(if different)	(Page.Line.Column.etc.)
(1)	(2)	(3)	(4)	(5)	(6)

- b. Please confirm that USPS-T-29 makes "proper" use of the estimates that come form LR-H-113? (By "proper" we mean the proper time period(s) and in a manner consistent with the objective of the sample design and analysis.)
- c. If part b is not confirmed, please explain why you cannot confirm to the use of these estimates.

RESPONSE:

a. The information requested is as follows:

(Note that at no time did we calculate standard deviations, since we viewed our measures of productivities and accept rates as population parameters.)

Source: LR-H-113			Use: USPS-T-29 Appendix I	-
Parameter Name	Location Page, Line, Column	Value	Name	Location
BCS Non-Incoming	Page 100,	95.0%	BCS OP	Middle of page 40 of
Secondary MPBCS/DBCS	Table Line 6,			43
Acceptance Rate	Column J			
BCS Non-Incoming	Page 100,	95.0%	BCS OS	Middle of page 40 of
Secondary MPBCS/DBCS	Table Line 6,			43
Acceptance Rate	Column J			
BCS Non-Incoming	Page 100,	95.0%	BCS MMP	Middle of page 40 of
Secondary MPBCS/DBCS	Table Line 6,			43
Acceptance Rate	Column J			
BCS Non-Incoming	Page 100,	95.0%	BCS SCF	Middle of page 40 of
Secondary MPBCS/DBCS	Table Line 6,		•	43
Acceptance Rate	Column J			
BCS Non-Incoming	Page 100,	95.0%	BCS IP	Middle of page 40 of
Secondary MPBCS/DBCS	Table Line 6,			43
Acceptance Rate	Column J			
BCS Incoming Secondary	Page 100,	89.9%	BCS IS	Middle of page 40 of
and Box Section	Table Line 8,			43
MPBCS/DBCS	Column J			
BCS Sector Segment and	Page 100,	95.0%	DBCS First Pass	Middle of page 40 of
DPS on MPBCS/DBCS	Table Line 9,			43
	Column J			
BCS Sector Segment and	Page 100.	95.0%	DBCS Second Pass	Middle of page 40 of
DPS on MPBCS/DBCS	Table Line 9,			43
	Column J			
OCR Non-Incoming	Page 100,	7,350	Non-Incoming Secondary	Top of page 43 of 43
Secondary	Table Line 3,	.,	MLOCR	top of page to of to
,	Column G			
RBCS Keying	Page 10	815.5	Non-Incoming Secondary	Top of page 43 of 43
Productivity		0.0.0	RBCS	Top of page 40 of 45
RBCS LMLM	Page 100,	4,985	Non-Incoming Secondary	Top of page 43 of 43
· · · · · · · · · · · · · · · · · · ·	Table Line 21.	4,000	RBCS	Top of page 40 of 45
	Column G		KBOO	
BCS Non-Incoming	Page 100,	11,984	Non-Incoming Secondary	Top of page 43 of 43
Secondary MPBCS-OSS	Table Line 7.	11,304	MPBCS-OSS	Top of page 43 of 43
occombary in 200-200	Column G		WII 203-033	
BCS Non-Incoming	Page 100,	7,467	Non-Incoming Secondary	Top of page 43 of 43
Secondary MPBCS/DBCS	Table Line 6.	1,401	MPBCS/DBCS	Top of page 43 of 43
Secondary INF BCS/DBCS	Column G		MITECSIDECS	
BCS Incoming	Page 100,	6,633	Incomina Constant	T6 (0 -6 (0
Secondary and Box Section	Table Line 8.	0,033	Incoming Secondary MPBCS	Top of page 43 of 43
MPBCS/DBCS	•		MPBC2	
BCS Sector Segment and	Column G	0.000	1	
	Page 100,	8,393	Incoming Secondary	Top of page 43 of 43
DPS on MPBCS/DBCS	Table Line 9,		DBCS Sector Segment/DPS	
	Column G			
Manual Letters	Page 100,	812	Manual Productivities	Middle of page 43
Bulk Business Mail	Table Line 13		Manual OP (Bulk Business	of 43
	Column G		Mail)	
Manual Letters	Page 100	691	Manual Productivities	Middle of page 43
Outgoing Secondary	Table Line 14		Manual OS	of 43
	Column G			······································
Manual Letters	Page 100,	759	Manual Productivities	Middle of page 43
State Distribution (Managed	Table Line 15		Manual Managed Mail	of 43
Mail)	Column G		(State)	
Manual Letters	Page 100,	896	Manual Productivities	Middle of page 43
SCF	Table Line 16		Manual SCF	of 43
	Column G			
Manual Letters	Page 100,	562	Manual Productivities	Middle of page 43
ncoming Primary	Table Line 17,		Manual IP	of 43
•	Column G			
Manual Letters	Page 100,	646	Manual Productivities	Middle of page 43
	-3			a. pago no
ncoming Secondary	Table Line 18,		Manual MODs Sites	of 43

- b. Confirmed. The appropriate time period is FY1996 AP-1 through FY 1996 AP-
- 13. Please see my response to AMMA/USPS-LR-H-113-1. Note however, that the question of whether the LR-H-113 estimates are used in a manner "consistent with the objective of the sample design and analysis" does not apply to the analysis actually conducted. The estimates in LR-H-113 are not derived from a sample of the relevant data, but from the population of all relevant MODS sites and accounting periods.

1 CHAIRMAN GLEIMAN: Does any participant have

- 2 additional written cross examination for Witness Baron?
- MR. COOPER: Mr. Chairman, before we get to that,
- 4 there were a number of library references that were the
- 5 subject matter of Mr. Baron's testimony, and I'd like to
- 6 move their admission at this time, as well.
- 7 CHAIRMAN GLEIMAN: Certainly.
- BY MR. COOPER:
- 9 Q Now, Mr. Baron, you have before you two copies of
- 10 Library References H-136, 137, 138, 139, 140, 141, 142, 143,
- 11 189, 225, and 289. Is that correct?
- 12 A Yes.
- 13 Q Are you familiar with these library references?
- 14 A Yes, I am.
- 15 Q Were they prepared by you or under your direct
- 16 supervision?
- 17 A Yes.
- 18 O Do you sponsor these for purposes of your
- 19 testimony here today?
- 20 A I do.
- MR. COOPER: With that, Mr. Chairman, I would ask
- that these library references be moved into the evidentiary
- 23 record, and I do not ask that they be transcribed.
- THE REPORTER: Would you give me the numbers?
- 25 MR. COOPER: I can give them to you later.

1 N	MR.	VOLNER:	Mr.	Chairman,	Ι	do	not	object	: to	the
-----	-----	---------	-----	-----------	---	----	-----	--------	------	-----

- 2 introduction of those library references into the record.
- I do note that there is one library reference
- 4 which has been omitted. I don't know whether counsel
- 5 intends to introduce it into the record or not, but it
- 6 certainly is going to be the subject of my oral cross.
- 7 CHAIRMAN GLEIMAN: And which library reference is
- 8 that?
- 9 MR. VOLNER: In a notice from the Postal Service
- 10 dated October 14, the Postal Service stated that Donald
- 11 Baron would be the sponsor of H-113, productivities and
- 12 accept rates for mail flow models.
- 13 MR. COOPER: I believe I can clarify that.
- MR. VOLNER: Okay.
- 15 MR. COOPER: That library reference has already
- been admitted into evidence at the time of Mr. Baron's prior
- 17 appearance.
- 18 CHAIRMAN GLEIMAN: That takes care of your
- 19 concern.
- 20 MR. VOLNER: That takes care of my concern at
- 21 least in that respect.
- 22 CHAIRMAN GLEIMAN: Are there any objections?
- [No response.]
- 24 CHAIRMAN GLEIMAN: I never know what to expect
- anymore when it comes to library references. There do not

1 appear to be any objections. That being the case, the

- 2 library references are admitted into evidence and they will
- 3 not be transcribed into the record.
- 4 [Library References H-136, H-137,
- 5 H-138, H-139, H-140, H-141, H-142,
- 6 H-143, H-189, H-225, and H-289 were
- 7 marked for identifictation and
- 8 received into evidence.]
- 9 CHAIRMAN GLEIMAN: Two participants requested oral
- 10 cross examination of Witness Baron, the Advertising Mail
- 11 Marketing Association and the Alliance of Non-Profit
- 12 Mailers. Does any other party wish to cross examine the
- 13 witness?
- [No response.]
- 15 CHAIRMAN GLEIMAN: If not, then Mr. Volner, you
- 16 can begin when you're ready.
- 17 MR. VOLNER: Thank you, Mr. Chairman.
- 18 CROSS EXAMINATION
- 19 BY MR. VOLNER:
- 20 O Mr. Baron, my name is Ian Volner. I am counsel
- 21 for the Advertising Mail Marketing Association, and this
- 22 will, I think, be very brief.
- 23 Let me start with a nitpick.
- 24 If you could turn to your response to AMMA
- 25 Interrogatory Library Reference H-113-5, you have on the

- second page of that interrogatory provided us with a very,
- very helpful crosswalk between the library reference that
- 3 you sponsored and the testimony and appendix particularly of
- 4 Witness Daniel, and if you look about three-quarters of the
- 5 way down the page, you will find an entry called BCS
- 6 non-incoming secondary MPBCS-DBCS. Do you see that? It's
- 7 about the 13th block down.
- 8 A It's the one that says BCS non-incoming secondary
- 9 MPBCS/DBCS?
- 10 Q That's right. Page 100, table -- line five is the
- 11 next entry, and it shows a value of 7,467.
- 12 A Okay.
- 13 Q Okay. We've got that one. Two blocks further
- down, you have an entry, BCS, sector segment, and DPS on
- 15 MBBCS/DBCS. Do you see that one, as well?
- 16 A Yes.
- 17 Q And you have a value of 8,383. And you
- 18 cross-reference us in both cases to the top of page 43 to
- 19 USPS-ST-29, Appendix 1. That appendix is already in the
- 20 record. Let me just show you a copy so that we can
- 21 understand what's going on here.
- MR. COOPER: Counsel, do you have a copy for me?
- MR. VOLNER: I certainly do.
- BY MR. VOLNER:
- 25 Q If you look at the last entry in the non-incoming

- 1 secondary block on page 43 of 43, I see a value of 8393, and
- 2 if you look at the middle entry on the next block, I see a
- 3 value of 7467, but those seem to be transposed from the
- 4 values that you showed in your answer to our interrogatory,
- 5 and my question simply is was the transposition yours or was
- 6 it Witness Daniel's?
- 7 A Okay.
- 8 Q And if you can't answer it, I really just want to
- 9 get this straightened out for the record so that we can
- 10 replicate the results.
- 11 A Sure.
- 12 Q If you are not able to answer it, I am perfectly
- happy to ask you to go back and straighten it out with
- 14 Witness Daniel's.
- 15 A If you turn to page 100 in H-113, LR-H-113 --
- 16 Q Right.
- 17 A If you look at the second row of data, you see the
- 18 7467.
- 19 Q Right.
- 20 A Okay.
- 21 Q So that it appears that Witness Daniel has
- 22 transposed the values?
- 23 A Right. We are showing the 7467 to be the
- 24 productivity for non-incoming secondary MPBCS/DBCS and we
- 25 are showing that 8393 is the productivity for sector segment

- and DPS on MPBCS/DBCS.
- Q Okay. I think that suggests that you have in your
- 3 answer to the interrogatory correctly tracked what was in
- 4 the library reference and I think for present purposes that
- 5 would suffice, but it raises another question.
- 6 Since we are on page 100, on that same column, the
- 7 7464 column, you show an accept rate of 95 percent.
- 8 Is that the same thing -- now let's go back to
- 9 page 43 of 43 of Appendix 1 to T-29.
- 10 Is that the same thing as the realization factor
- that Witness Daniel has shown as 85 percent? Or is that
- 12 something different?
- 13 A I don't know what Witness Daniel means by
- 14 realization factor.
- 15 Q Okay.
- 16 A In fact, I don't see it on this page that you
- 17 handed me.
- 18 Q At the bottom of the page.
- 19 A Oh, okay.
- 20 Q She shows a footnote, Docket Number MC96-2,
- 21 USPS-T-5, Appendix 1, pieces per hour times realization
- 22 factor.
- 23 A I really don't know what the witness was doing at
- 24 this footnote.
- One more question with respect to your answer to

- our interrogatory and we'll go on to a little more
- 2 substantive matters, I think.
- In the development of that Library Reference did
- 4 you have or did you develop a productivity for the carrier
- 5 sequence barcode sorter?
- 6 A No, we did not.
- 7 O Thank you.
- 8 Well, then let's go on to the last set of very
- 9 brief questions that I have.
- 10 Let me start by asking were you at all involved in
- 11 the presentation of the case in what was called MC96-2 or
- 12 otherwise known as Reclassification Reform II -- the
- 13 nonprofit reclassification case?
- 14 A We may have done some statistical analyses that
- 15 were used.
- 16 Q But you were not personally or directly involved?
- 17 A That's correct.
- 18 Q Okay. Did you have occasion to look at Witness
- 19 Daniel's testimony in that case in connection with your
- 20 preparation or supervision of the preparation of Library
- 21 Reference 113?
- 22 A No. I did not.
- 23 O You did not. So you have no idea how the
- 24 productivities for carrier sequence barcode scrters were
- 25 developed in that case?

- 1 A No, I don't but I am sure that we did not provide
- 2 productivities for carrier sequence barcode sorters because
- 3 our source of data for such productivities is the MODS file
- 4 and there were no data available at that time from the MODS
- 5 file on carrier sequence barcode sorters.
- 6 Q Well, when I asked you before whether you
- 7 developed a productivity for this case, for the carrier
- 8 sequence barcode sorter, you said you did not.
- 9 A For the same reason. There were still
- 10 insufficient data.
- 11 O In the MODS file?
- 12 A In the MODS file for FY 1986.
- 13 Q Well, that may answer the next question that I
- 14 have, but let me ask it anyway.
- There is evidence on this record from Witness
- 16 Smith that the delivery barcode sorter has a capacity that
- is three times the capacity of the carrier sequence barcode
- 18 sorter -- just accept that subject to check.
- Do you have in the course of preparing your
- 20 Library References and testimony any reason to understand
- 21 why the productivity of the carrier sequence barcode sorter
- seems to be greater, significantly greater, than the
- 23 productivity of the DBCS?
- MR. COOPER: I might object to the form of the
- 25 question, but I'll accept it as a hypothetical.

7	RY	MK	VOLNER:

- Q Okay. Take it as a hypothetical. I don't
- 3 really -- I will establish through other evidence that
- 4 there's predicates for it, but let's do it as a
- 5 hypothetical.
- Is it as a matter of theory possible that the
- 7 capacity, the machine with the greater capacity has a
- 8 significantly lower productivity?
- 9 A I don't know. I'm not an operations expert.
- 10 MR. VOLNER: I have no futher questions.
- 11 CHAIRMAN GLEIMAN: Thank you, Mr. Vclner.
- 12 Mr. Thomas?
- 13 Mr. Thomas has no cross-examination.
- 14 Is there any followup by anyone in the room?
- 15 Is there anyone else in the room?
- 16 Questions from the bench?
- 17 There don't appear to be any.
- 18 Mr. Cooper, do you feel the need for redirect?
- 19 MR. COOPER: No, I feel no such need.
- 20 CHAIRMAN GLEIMAN: Okay. If that is the case,
- then, Mr. Baron, I want to thank you. We appreciate your
- 22 appearance here today and your contributions to the record,
- and if there's nothing further, you're excused.
- 24 [Witness excused.]
- 25 CHAIRMAN GLEIMAN: That brings us to our next

1	witness, and I yes, sir.
2	MR. TIDWELL: Mr. Chairman, before we proceed to
3	the next witness, the Postal Service would like to report
4	that we now do have the declaration that would be
5	appropriate for attachment to the designated written
6	cross-examination of Witness Hatfield, and we might want to
7	take this occasion to move that into the record at this
8	point.
9	CHAIRMAN GLEIMAN: Well, you've just answered the
10	magic question.
11	Are there any objections to our moving the
12	designated written cross-examination of Witness Hatfield
13	into the record?
14	There don't appear to be any. I'm going to hand
15	two copies to the reporter and direct that they be received
16	into evidence and transcribed into the record at this point
17	[Designation of Written
18	Cross-Examination of Philip A.
19	Hatfield, USPS-T-25, was received
20	into evidence and transcribed into
21	the record.]
22	
23	
24	

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BEFORE THE POSTAL RATE COMMISSION WASHINGTON, DC 20268-0001

Postal Rate and Fee Changes, 1997

Docket No. R97-1

DESIGNATION OF WRITTEN CROSS-EXAMINATION
OF UNITED STATES POSTAL SERVICE
WITNESS PHILIP A. HATFIELD
(USPS-T25)

<u>Party</u>

Interrogatories

Advertising Mail Marketing Association

AMMA/USPS-H130-1-2

Respectfully submitted,

Margaret P. Crenshaw

Secretary

INTERROGATORY RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS PHILIP A. HATFIELD (T25) DESIGNATED AS WRITTEN CROSS-EXAMINATION

Interrogatory:

Designating Parties:

AMMA/USPS-H130-1

AMMA

AMMA/USPS-H130-2

AMMA

AMMA/USPS-LR-H-130-1. The following questions refer to the "Data Collection Period" discussed in the "Data Collection Packet" of LR-H-130.

- a. Please confirm that the data collection took place on Monday through Friday (no Saturdays or Sundays) beginning February 24, 1997 and ending March 7, 1997 for a total of ten (10) consecutive work days plus "two scheduled contingency days" (March 10 and 11).
 - b. If you cannot confirm part a., please provide the correct dates.
 - c. How and why was this particular ten (10) day period chosen?
- d. Did you or anyone else test the implicit assumption of the users of these data that the information collected and parameters estimated by the sample study are not subject to seasonal fluctuations?
 - e. If the answer to part d is "yes", please provide all analyses of the test(s)?
- f. If the answer to part d is "no", what was the justification for making the assumption described in part d?

RESPONSE:

- a. Confirmed.
- b. N/A
- c. The data collection period was chosen based on the rate filing schedule, the ability to minimize impact on field personnel and normal processing, and to be cost-effective in collection the necessary data.
 - d. No.
 - e. N/A
- f. In order to test the hypothesis that the accept and upgrade rates of automation equipment by specific mail type vary seasonally, a significant amount of data would be necessary. Specifically, estimates of these parameters at varying times

throughout the year would be needed. These data are not currently available and their collection would be costly and cause a significant disruption of normal processing operations. Further, for the most part, these parameters would not be expected to vary seasonally. For these reasons, no test for seasonal fluctuations was conducted.

AMMA/USPS-LR-H-130-2. USPS Witness Daniel (USPS-T-29 Appendix I page 40 of 43) cites LR-H-130 as the source of Standard (A) acceptance rates. Please explain all of the differences between Witness Daniel's rates and terminology on the page cited in Witness Daniel's testimony and the rates and terminology in Tables 5.1, 5.2 and 5.3 on page 10 of LR-H-130.

RESPONSE:

In comparing the table in witness Daniel's testimony (Appendix I, page 40) to page 10 of USPS LR-H-130 there are no differences in the accept and upgrade rates. One possible source of confusion may be the fact that an errata was filed to USPS LR-H-130 on October 6th that changed some of the upgrade rates. Despite the errata, witness Daniel's testimony has contained the correct rates since it was originally filed.

Although the terminology used by witness Daniel on page 40 of Appendix I of her testimony is slightly different than that used in USPS LR-H-130 on page 10, the descriptions refer to the same mail types. The table below provides a mapping between the mail type descriptions used by witness Daniel and those used in USPS LR-H-130:

USPS-T-29, Appendix I, page 40	USPS LR-H-130, page 10
MLOCR & ISS Basic Non-Automation	Table 5.3 - 3C basic presort non-
Compatible	automation, Non-OCR
MLOCR & ISS Basic Automation	Table 5.3 - 3C basic presort non-
Compatible	automation, OCR
MLOCR & ISS 3/5 Presort Non-	Table 5.3 - 3C 3/5 presort non-automation,
Automation Compatible	Non-OCR
MLOCR & ISS 3/5 Presort Automation	Table 5.3 - 3C 3/5 presort non-automation,
Compatible	OCR

MPBCS-OSS Basic Non-Automation	Table 5.1 - 3C basic presort non-
Compatible	automation, Non-OCR
MPBCS-OSS Basic Automation	Table 5.1 - 3C basic presort non-
Compatible	automation, OCR
MPBCS-OSS 3/5 Presort Non-Automation	Table 5.1 - 3C 3/5 presort non-automation,
Compatible .	Non-OCR
MPBCS-OSS 3/5 Presort Automation	Table 5.1 - 3C 3/5 presort non-automation,
Compatible	OCR
MPBCS-OSS Rejects to: Basic Non-	Table 5.2 - 3C basic presort non-
Automation Compatible	automation, Non-OCR
MPBCS-OSS Rejects to: Basic	Table 5.2 - 3C basic presort non-
Automation Compatible	automation, OCR
MPBCS-OSS Rejects to: 3/5 Presort Non-	Table 5.2 - 3C 3/5 presort non-automation,
Automation Compatible	Non-OCR
MPBCS-OSS Rejects to: 3/5 Presort	Table 5.2 - 3C 3/5 presort non-automation,
Automation Compatible	OCR

DECLARATION

I, Philip A. Hatfield, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.

Mily a Hatfield

Dated: December 3, 1997

1 CHAIRMAN GLEIMAN: We'll give postal counsel a

- 2 moment to change places over there.
- 3 We'll recess briefly.
- 4 [Recess.]
- 5 MR. ALVERNO: Are you ready, Mr. Chairman?
- 6 CHAIRMAN GLEIMAN: Whenever you are, Mr. Alverno.
- 7 If you'd like to identify your witness so that I can swear
- 8 him in.
- 9 MR. ALVERNO: The Postal Service calls Dr. Daniel
- 10 Talmo to the stand.
- 11 Whereupon,
- 12 DANIEL TALMO,
- a witness, was called for examination by counsel for the
- 14 United States Postal Service and, having been first duly
- sworn, was examined and testified as follows:
- 16 DIRECT EXAMINATION
- 17 BY MR. ALVERNO:
- 18 Q Please introduce yourself.
- 19 A My name is Daniel Talmo.
- 20 Q And where are you employed?
- 21 A I'm employed with Lauritz R. Christensen
- 22 Associates in Madison, Wisconsin.
- 23 Q Now earlier, Dr. Talmo, I handed you two copies of
- 24 a document entitled Supplemental Testimony of Daniel Talmo
- on behalf of the United States Postal Service marked as

1 USPS-ST-50. Did you have a chance to examine them?

- 2 A Yes, I did.
- 3 Q And within that testimony is incorporated by
- 4 reference several library references; correct?
- 5 A Yes.
- 6 Q And those include which library references?
- 7 A LR H-105, 190, and 195.
- 8 Q Okay. And those -- the titles generally are mail
- 9 characteristic studies for which subclasses?
- 10 A Mail characteristics studies for Standard A
- nonprofits, Standard A regular rate, and at the time Second
- 12 Class mail.
- 13 Q Okay. And was this testimony which incorporates
- 14 these library references prepared by you or under your
- 15 supervision?
- 16 A Yes, it was.
- 17 Q And do you have any changes or corrections to
- 18 make?
- 19 A No, I do not.
- 20 Q And if you were to testify orally today would your
- 21 testimony be the same?
- 22 A Yes, it would.
- MR. ALVERNO: Mr. Chairman, I ask that the
- 24 supplemental testimony of Daniel Talmo on behalf of the
- 25 United States Postal Service marked as USPS-ST-50, which

- incorporates by reference Library References H-105, H-190,
- 2 and H-195, be received as evidence at this time.
- 3 CHAIRMAN GLEIMAN: Are there any objections?
- 4 Hearing none, Dr. Talmo's testimony and exhibits
- 5 are received into evidence. I direct that they be accepted
- 6 into evidence, and as is our practice, they will not be
- 7 transcribed into the record at this point.
- 8 [Supplemental Testimony and
- 9 Exhibits of Daniel Talmo, Exhibit
- No. USPS-ST-50, was marked for
- identification and received into
- 12 evidence.]
- 13 CHAIRMAN GLEIMAN: Dr. Talmo, have you had an
- opportunity to examine the packet of designated written
- cross-examination that was made available earlier today?
- 16 THE WITNESS: Yes, I did.
- 17 CHAIRMAN GLEIMAN: If these questions were asked
- 18 of you today would your answers be the same as those you
- 19 previously provided in writing?
- THE WITNESS: Yes, they would.
- 21 CHAIRMAN GLEIMAN: That being the case, I'm going
- 22 to provide two copies of the designated written
- 23 cross-examination of Witness Talmo to the reporter and
- 24 direct that they be accepted into evidence and transcribed
- 25 into the record at this point.

1	[Designation of Written
2	Cross-Examination of Daniel Talmo,
3	USPS-ST-50, was received into
4	evidence and transcribed into the
5	record.]
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BEFORE THE POSTAL RATE COMMISSION WASHINGTON, DC 20268-0001

Postal Rate and Fee Changes, 1997

Docket No. R97-1

DESIGNATION OF WRITTEN CROSS-EXAMINATION OF UNITED STATES POSTAL SERVICE WITNESS DANIEL TALMO (USPS-ST50)

<u>Party</u>

Interrogatories

Advertising Mail Marketing Association

AMMA/USPS-H105-1, 3-4

Office of the Consumer Advocate

AMMA/USPS-H105-1-4

Respectfully submitted,

Margaret P. Crenshaw

Secretary

INTERROGATORY RESPONSES OF UNITED STATES POSTAL SERVICE WITNESS DANIEL TALMO (ST50) DESIGNATED AS WRITTEN CROSS-EXAMINATION

Interrogatory: Designating Parties:

AMMA/USPS-H105-1 AMMA, OCA

AMMA/USPS-H105-2 OCA

AMMA/USPS-H105-3 AMMA, OCA

AMMA/USPS-H105-4 AMMA, OCA

WRITTEN INTERROGATORY RESPONSES OF USPS WITNESS TALMO TO AMMA DESIGNATED BY THE OFFICE OF THE CONSUMER ADVOCATE

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS TALMO TO INTERROGATORIES OF ADVERTISING MAIL MARKETING ASSOCIATION

AMMA/USPS-LR-H-105-1. The sample study described in LR-H-105 states that the data were collected for a six (6) week period.

- a. Please confirm that the period began Wednesday, January 23, <u>1997</u> and ended Tuesday, March 11, <u>1997</u>.
- b. If you cannot confirm part a., please provide the correct dates.
- c. How and why was this particular six (6) week period chosen?
- d. Did you or anyone else test the implicit assumption made by the users of these data that the information collected and parameters estimated by the sample study are not subject to seasonal fluctuations?
- e. If the answer to part d is "yes", please provide all analyses of the test(s)?
- f. If the answer to part d is "no", what was the justification for making the assumption described in part d?

AMMA/USPS-LR-H-105-1 Response:

- a. Confirmed.
- b. N/A.
- c. Implementation of postal Classification Reform for commercial Standard (A) in the summer of 1996 resulted in changes in mail preparation. The survey period was chosen to be sufficiently beyond the introduction of the new classification reform requirements to allow mailers time to stabilize their mailing patterns, yet soon enough to complete the survey analysis in time for the rate filing.
- d. No.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS TALMO TO INTERROGATORIES OF ADVERTISING MAIL MARKETING ASSOCIATION

- e. N/A:
- f. Given that Classification Reform was implemented in 1996, there had not been four continuous quarters during which the new requirements were in effect in order to test the assumption. Consequently, it was assumed that the distributions would be equal across quarters.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS TALMO TO INTERROGATORIES OF ADVERTISING MAIL MARKETING ASSOCIATION

AMMA/USPS-LR-H-105-2. What is the data format of each of the machine readable output files in LR-H-105?

AMMA/USPS-LR-H-105-2 Response:

See Attachment.

Formats for Output Files Listed in LR-H-105 Appendix E, by Section

I. Stratification and Sample Selection

File format for finstrata.pmt:

Position From	Position To	Field Length	Variable Description
1	7	7	PERMIT finance number
8	10	3	Strata index - First Class
11	13	3	Strata index - Std A Regular Rate
14	16	3	Strata index - Std A Nonprofit

File format for pmtstda.ms.st:

Position	Position	Field	Variable
From	То	Length	Description
1	2	2	NCTB strata index
3	3	1	Transaction type index:
			1 = identical
Ì		l	2 = non-identical
			3 = bad weight (identical or non-identical)
4	6	3	Transaction size index:
[=	see Table 2, Column 1 for description
7	7	1	Processing category index:
	,		1 = letters
			2 = flats
	,		3 = parcels
8	10	3	Std A Regular Rate VIP index:
1			index indicates position in vipmap96.dat
11	24	14	Revenue
25	36	12	Pieces
37	48	12	Weight

File format for offdat.ver:

Position	Position	Field	Variable
From	To	Length	Description
1	20	20	Carrier route weight
21	40	20	3/5-digit weight
41	60	20	Basic weight
61	80	20	None weight
81	100	20	BMC weight
101	120	20	SCF weight
121	140	20	DDU weight
141	160	20	Piece rate weight
161	180	20	Pound rate weight
181	200	20	Total weight
201	220	20	Carrier route pieces
221	240	20	3/5-digit pieces
241	260	20	Basic pieces
261	280	20	None pieces
281	300	20	BMC pieces
301	320	20	SCF pieces
321	340	20	DDU pieces
341	360	20	Piece rate pieces
361	380	20	Pound rate pieces
381	400	20	Total pieces

Note: The rows of this file are organized into 6 distinct blocks as follows:

First block = Identical, automation transactions by office size stratum

Second Block = Identical, nonautomation transactions by office size stratum

Third Block = Non-identical, automation transactions by office size stratum

Fourth Block = Non-identical, nonautomation transactions by office size stratum

Fifth Block = Total identical transactions by office size stratum

Sixth Block = Total non-identical transactions by office size stratum

Each block is separated by a blank row.

A row of a block represents an office size stratum.

File format for msdat.ver:

Position	Position	Field	Variable
From	То	Length	Description
1	20	20	Carrier route weight
21	40	20	3/5-digit weight
41	60	20	Basic weight
61	80	20	None weight
81	100	20	BMC weight
101	120	20	SCF weight
121	140	20	DDU weight
141	160	20	Piece rate weight
161	180	20	Pound rate weight
1 81	200	20	Total weight
201	220	20	Carrier route pieces
221	240	20	3/5-digit pieces
241	260	20	Basic pieces
261	280	20	None pieces
281	300	20	BMC pieces
301	320	20	SCF pieces
321	340	20 .	DDU pieces
341	360	. 20	Piece rate pieces
361	380	20	Pound rate pieces
381	400	20	Total pieces

Note: The rows of this file are organized into 6 distinct blocks as follows:

First block = Identical, automation transactions by transaction size stratum

Second Block = Identical, nonautomation transactions by transaction size stratum

Third Block = Non-identical, automation transactions by transaction size stratum

Fourth Block = Non-identical, nonautomation transactions by transaction size stratum

Fifth Block = Total identical transactions by transaction size stratum

Sixth Block = Total non-identical transactions by transaction size stratum

Each block is separated by a blank row.

A row of a block represents a transaction size stratum.

File format for off_std.ver:

Position	Position	Field	Variable
From	To	Length	Description
1	3	3	Office size stratum index
4	23	20	Mean of transaction volume
24	47	24	Standard deviation of transaction volume
48	67	20	Mean of adjusted revenue per transaction
68	91	24	Standard deviation of adjusted revenue per transaction
92	111	20	Mean of adjusted revenue per piece
112	135	24	Standard deviation of adjusted revenue per piece
136	155	20	Mean of unadjusted revenue per piece
156	179	24	Standard deviation of unadjusted revenue per piece
180	191	12	Number of transactions

File format for ms_std.ver :

Position	Position	Field	Variable
From	То	Length	Description
1	3	3	Transaction size stratum index
4	23	20	Mean of transaction volume
24	47	24	Standard deviation of transaction volume
48	67	20	Mean of adjusted revenue per transaction
68	91	24	Standard deviation of adjusted revenue per transaction
92	111	20	Mean of adjusted revenue per piece
112	135	24	Standard deviation of adjusted revenue per piece
136	155	20	Mean of unadjusted revenue per piece
156	179	24	Standard deviation of unadjusted revenue per piece
180	191	12	Number of transactions

File format for strata.dat.reg:

Position From	Position To	Field Length	Variable Description
1	3	3	Transaction size stratum index
4	19	16	Ratio of permit imprint to stampted and metered revenue
20	35	16	Ratio of letter and flat revenue to total revenue

II. Main Results

Several output file formats that follow refer to a container code or a package code field. The following two tables define the container and package codes used in those files.

Package codes

Code	Description	Code	Description
CCK	Carrier Route package	AAK	ADC Auto package
5AK	5-Digit Auto package	ANK	ADC Nonauto package
5NK	5-Digit Nonauto package	MAK	Mixed ADC Auto package
3AK	3-Digit Auto package	MNK	Mixed ADC Nonauto package
3NK	3-Digit Nonauto package		

Container Codes

5XPP 5-Digit Pallet 3XPP 3-Digit Pallet BXPP BMC Pallet ZXPP Mixed BMC Pallet ZXPP Mixed BMC Pallet SXFF SCF Pallet CCT2 Carrier Route Sack or 2-Foot Carrier Route Tray CCT1 1-Foot Carrier Routes Sack or 2-Foot Carrier Route Tray FCT2 5-Digit Carrier Routes Sack or 2-Foot Carrier Route Tray FCT1 1-Foot 5-Digit Carrier Routes Tray TCT2 2-Foot 3-Digit Carrier Routes Tray TCT1 1-Foot 3-Digit Carrier Routes Tray 5AT2 2-Foot 5-Digit Automation Tray 5AT1 1-Foot 5-Digit Automation Tray 5NT2 5-Digit Sack or 2-Foot 5-Digit Nonautomation Tray 5NT1 1-Foot 5-Digit Nonautomation Tray 3AT2 2-Foot 3-Digit Automation Tray 3AT1 1-Foot 3-Digit Automation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray AAT1 1-Foot ADC Sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MNT1 1-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT1 1-Foot Mixed ADC Nonautomation tray	0 - 1 -	<u> </u>
3XPP 3-Digit Pallet BXPP BMC Pallet ZXPP Mixed BMC Pallet SXFF SCF Pallet CCT2 Carrier Route Sack or 2-Foot Carrier Route Tray CCT1 1-Foot Carrier Routes Sack or 2-Foot Carrier Route Tray FCT2 5-Digit Carrier Routes Sack or 2-Foot Carrier Route Tray FCT3 1-Foot 3-Digit Carrier Routes Tray TCT4 2-Foot 3-Digit Carrier Routes Tray TCT5 2-Foot 3-Digit Carrier Routes Tray TCT6 1-Foot 3-Digit Carrier Routes Tray TCT7 1-Foot 3-Digit Automation Tray SAT2 2-Foot 5-Digit Automation Tray SAT3 1-Foot 5-Digit Automation Tray SNT2 5-Digit Sack or 2-Foot 5-Digit Nonautomation Tray SNT1 1-Foot 3-Digit Automation Tray 3AT2 2-Foot 3-Digit Automation Tray 3AT1 1-Foot 3-Digit Automation Tray 3NT2 3-Digit Sack or 2-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray AAT1 1-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MNT1 1-Foot Mixed ADC Automation tray MNT1 1-Foot Mixed ADC Automation tray MNT1 1-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray SUT2 2-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	Code	Description
BXPP BMC Pallet ZXPP Mixed BMC Pallet SXFF SCF Pallet CCT2 Carrier Route Sack or 2-Foot Carrier Route Tray CCT1 1-Foot Carrier Routes Sack or 2-Foot Carrier Route Tray FCT2 5-Digit Carrier Routes Sack or 2-Foot Carrier Route Tray FCT1 1-Foot 5-Digit Carrier Routes Tray TCT2 2-Foot 3-Digit Carrier Routes Tray TCT1 1-Foot 3-Digit Carrier Routes Tray TCT1 1-Foot 5-Digit Automation Tray SAT2 2-Foot 5-Digit Automation Tray 5AT1 1-Foot 5-Digit Automation Tray 5NT2 5-Digit Sack or 2-Foot 5-Digit Nonautomation Tray 5NT1 1-Foot 5-Digit Automation Tray 3AT2 2-Foot 3-Digit Automation Tray 3AT1 1-Foot 3-Digit Automation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray AAT1 1-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Nonautomation tray MAT1 1-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray MNT1 1-Foot S-Digit Upgradable tray 5UT2 2-Foot 3-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	<u> </u>	<u> </u>
XXPP Mixed BMC Pallet SXFF SCF Pallet CCT2 Carrier Route Sack or 2-Foot Carrier Route Tray CCT1 1-Foot Carrier Route Tray FCT2 5-Digit Carrier Routes Sack or 2-Foot Carrier Route Tray FCT1 1-Foot 5-Digit Carrier Routes Tray TCT2 2-Foot 3-Digit Carrier Routes Tray TCT1 1-Foot 3-Digit Carrier Routes Tray TCT1 1-Foot 3-Digit Carrier Routes Tray 5AT2 2-Foot 5-Digit Automation Tray 5AT1 1-Foot 5-Digit Automation Tray 5NT2 5-Digit Sack or 2-Foot 5-Digit Nonautomation Tray 5NT1 1-Foot 5-Digit Nonautomation Tray 3AT2 2-Foot 3-Digit Automation Tray 3AT1 1-Foot 3-Digit Automation Tray 3NT1 3-Digit Sack or 2-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray AAT1 1-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 2-Foot 5-Digit Upgradable tray 3-UT2 2-Foot 3-Digit Upgradable tray 3-UT2 2-Foot 3-Digit Upgradable tray 3-UT2 2-Foot 3-Digit Upgradable tray		
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5NT2 5-Digit Sack or 2-Foot 5-Digit Nonautomation Tray 1-Foot 5-Digit Nonautomation Tray 2-Foot 3-Digit Automation Tray 3AT1 1-Foot 3-Digit Automation Tray 3NT2 3-Digit Sack or 2-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT1 1-Foot Mixed ADC Nonautomation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	5AT2	2-Foot 5-Digit Automation Tray
1-Foot 5-Digit Nonautomation Tray 2-Foot 3-Digit Automation Tray 3AT1 1-Foot 3-Digit Automation Tray 3NT2 3-Digit Sack or 2-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray ANT1 1-Foot Mixed ADC Automation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT1 1-Foot Mixed ADC Sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	5AT1	1-Foot 5-Digit Automation Tray
3AT2 2-Foot 3-Digit Automation Tray 3AT1 1-Foot 3-Digit Automation Tray 3NT2 3-Digit Sack or 2-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot ADC Automation tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	5NT2	5-Digit Sack or 2-Foot 5-Digit Nonautomation Tray
3AT1 1-Foot 3-Digit Automation Tray 3NT2 3-Digit Sack or 2-Foot 3-Digit Nonautomation Tray 3NT1 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	5NT1	1-Foot 5-Digit Nonautomation Tray
3-Digit Sack or 2-Foot 3-Digit Nonautomation Tray 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray 2-Foot 3-Digit Upgradable tray	3AT2	2-Foot 3-Digit Automation Tray
3NT1 1-Foot 3-Digit Nonautomation Tray AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 3-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	3AT1	1-Foot 3-Digit Automation Tray
AAT2 2-Foot ADC Automation tray AAT1 1-Foot ADC Automation tray ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	3NT2	3-Digit Sack or 2-Foot 3-Digit Nonautomation Tray
AAT1 1-Foot ADC Automation tray ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	3NT1	1-Foot 3-Digit Nonautomation Tray
ANT2 ADC sack or 2-Foot ADC Nonautomation tray ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	AAT2	2-Foot ADC Automation tray
ANT1 1-Foot ADC Nonautomation tray MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	AAT1	1-Foot ADC Automation tray
MAT2 2-Foot Mixed ADC Automation tray MAT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	ANT2	ADC sack or 2-Foot ADC Nonautomation tray
MAT1 1-Foot Mixed ADC Automation tray MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	ANT1	1-Foot ADC Nonautomation tray
MNT2 Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	MAT2	2-Foot Mixed ADC Automation tray
MNT1 1-Foot Mixed ADC Nonautomation tray 5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	MAT1	1-Foot Mixed ADC Automation tray
5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	MNT2	Mixed ADC sack or 2-Foot Mixed ADC Nonautomation tray
5UT2 2-Foot 5-Digit Upgradable tray 5UT1 1-Foot 5-Digit Upgradable tray 3UT2 2-Foot 3-Digit Upgradable tray	MNT1	1-Foot Mixed ADC Nonautomation tray
3UT2 2-Foot 3-Digit Upgradable tray	5UT2	2-Foot 5-Digit Upgradable tray
3UT2 2-Foot 3-Digit Upgradable tray	5UT1	1-Foot 5-Digit Upgradable tray
	3UT2	1
	3UT1	

File format for the following output files:

tabdreg	NMNUPGR.reg
tabereg	MNUPGRX.reg
trayall.reg	tabd2reg
tabb.reg	tabe2reg
tabc1reg	tabd3reg
tabc2reg	tabe3reg

Position	Position	Field	Variable
From	То	Length	Description
1	2	2	Transaction level; 1 = small, 2 = medium,
	ł		3 = large, 4 = extra large
3	4	2	Office level; 1= large, 2 = medium, 3 = small
5	9	5	Container code (see scheme for detail)
10	14	5	Style name; TRAY, SACK or PALLET
15	30	16	Carrier Route Package
31	45	15	5-Digit Auto Package
46	60	15	5-Digit Nonauto Package
61	75	15	3-Digit Auto Package
76	90	15	3-Digit Nonauto Package
91	105	15	ADC Auto Package
106	120	15	ADC Nonauto Package
121	135	15 '	Mixed ADC Auto Package
136	150	15	Mixed ACD Nonauto Package
151	165	15	No packaging
166	180	15	Total inventoried containers
181	195	15	Numerator of inflation factor
196	210	15	Denominator of inflation factor

Notes:

- 1. Any table created by the table_maker.f subroutine is vertically divided into two parts. The top part represents total inflated pieces for container-package combinations. The bottom part (delimited by a title line starting with "****") represents total inflated packages for container-package combinations.
- 2. The "No packaging" field contains data for containers in which no packaging is allowed.
- 3. Combinations of transaction and office level determine a stratum.

File format for label.err:

	Position From	Position To	Field Length	Variable Description
ľ	1	5	5	Observation name
Ì	6	61	56	Label error description
ı	62	65	4	Label number

File format for label.err2:

Position	Position	Field	Variable
From	To	Length	Description
1	5	5	Observation name
6	46	41	Label error description
47	51	5	Container code (see scheme for detail)
52	53	2	Line 2 index: 1 = BC, 2 = BC/AutomationScheme, 3 = Upgr, 4 = Non-OCR, 9 = Other

File format for package.err:

Position From	Position To	Field Length	Variable Description
1	20	20	Package error description
21	26	6	Observation name
27	37	11	Container code (see scheme for detail)
38	47	10	Package code (see scheme for detail)

File format for outly.pcs:

Position From	Position To	Field Length	Variable Description
1	6	6	Observation name
7	13	7	Container code (see scheme for detail)
14	18	5	Package code (see scheme for detail)
19	21	3	Style index: 1 = not used, 2 = tray, 3 = sack, 4 = pallet
22	29	88	Average pieces per package

III. Carrier Route Analysis

File format for the following output files as created by table_maker.f.

trayall.reg

tabe__.reg

tabd___.reg

taba06a.reg to taba09b.reg

Please refer to the file format listed for Section II, above.

File format for the following output files:

labels.err

package.err

labels.em2

outly.pcs

Please refer to the file format listed for Section II, above

IV. Destinating Entry Discount Analysis

File format for the following output files: letpal.reg sackpal.reg

Position	Position	Field	Variable
From	To	Length	Description
1	6	6	Observation Name
7	11	5	Container code (see scheme for detail)
12	21	10	Total pieces in Carrier Route Sacks or 2-Foot Carrier Route Trays
22	31	10	Total pieces in 1-Foot Carrier Route Trays
32	41	10	Total pieces in 5-Digit Carrier Routes Sacks or 2-Foot Carrier Route Trays
42	51	10	Total pieces in 1-Foot 5-Digit Carrier Routes Trays
52	61	10	Total pieces in 2-Foot 3-Digit Carrier Routes Trays
62	71	10	Total pieces in 1-Foot 3-Digit Carrier Routes Trays
72	81	10	Total pieces in 2-Foot 5-Digit Auto Trays
82	91	10	Total pieces in 1-Foot 5-Digit Auto Trays
92	101	10	Total pieces in 5-Digit Sacks or 2-Foot 5-Digit Nonauto Trays
102	111	10	Total pieces in 1-Foot 5-Digit Nonauto Trays
112	121	10	Total pieces in 2-Foot 3-Digit Auto Trays
122	131	10	Total pieces in 1-Foot 3-Digit Auto Trays
132	141	10	Total pieces in 3-Digit Sacks or 2-Foot 3-Digit Nonauto Trays
142	151	10	Total pieces in 1-Foot 3-Digit Nonauto Trays
152	161	10	Total pieces in 2-Foot ADC Auto Trays
162	171	10	Total pieces in 1-Foot ADC Auto Trays
172	181	10	Total pieces in ADC Sacks or 2-Foot ADC Nonauto Trays
182	191	10	Total pieces in 1-Foot ADC Nonauto Trays
192	201	10	Total pieces in 2-Foot Mixed ADC Auto Trays
202	211	10	Total pieces in 1-Foot Mixed ADC Auto Trays
212	221	10	Total pieces in Mixed ADC Sacks or 2-Foot Mixed ADC Nonauto Trays
222	231	10	Total pieces in 1-Foot Mixed ADC Nonauto Trays
232	241	10	Total pieces in 2-Foot 5-Digit Upgradable Trays
242	251	10	Total pieces in 1-Foot 5-Digit Upgradable Trays
252	261	10	Total pieces in 2-Foot 3-Digit Upgradable Trays
262	271	10	Total pieces in 1-Foot 3-Digit Upgradable Trays

Notes:

- 1. For letpal.reg, the data are letters in trays. For example, the data in the CCT2 field are total letters in 2-foot carrier route trays.
- 2. For sackpal.reg, the data are flats in sacks. For example, the data in the CCT2 field are total flats in carrier route sacks.
- 3. Container fields that are not allowed for a shape are always filled with zeros. For example, since the "CCT1" field always represents pieces in 1-foot carrier route trays, and since flats cannot be in trays, then this field will be all zeros in sackpal.reg.

File format for avepal.dat:

Position From	Position To	Field Length	Variable Description
1	11	11	BXPP= BMC Pallet, ZXPP = Mixed BMC Pallet, "ALL OTH PAL" = all other pallets
12	27		Inflated total number of letters in trays on pallets
28	42	15	Inflated total number of pallets containing trays

File format for the following output files: trayall.reg tabd___.reg

tabe___.reg

Please refer to the file format listed for Section II, above

File format for the following output files:

labels.err

package.err

labels.err2

outly.pcs

Please refer to the file format listed for Section II, above

V. Mail Entry Point Profile

File format for meppv2.cvs:

Column	
Letter	Description
A	Shape index; 1= letters, 2 = flats
В	Form index: 1 = yellow form, 2 = green form, 3 = blue form
С	Type index: 1= SCF pallet or finer, 2 = BMC pallet, 3 = Mixed BMC pallet,
	4 = 3-Digit or finer sack or tray, 5 = ADC sack or tray, 6 = Mixed ADC sack or tray
D	Total BMEU pieces/weight entering at an AO whose parent SCF is not an ADC
E	Total BMEU pieces/weight destinating in service area of an AO whose parent SCF is not an ADC
F	Total BMEU pieces/weight entering at an SCF that is not an ADC
G	Total BMEU pieces/weight destinating in service area of SCF that is not an ADC
Н	Total BMEU pieces/weight entering at an AO whose parent SCF is an ADC
1	Total BMEU pieces/weight destinating in service area of an AO whose parent SCF is an ADC
J	Total BMEU pieces/weight entering at an SCF that is an ADC
K	Total BMEU pieces/weight destinating in service area of SCF that is an ADC
L	Total Dropship pieces/weight entering at a BMC
М	Total Dropship pieces/weight destinating in service area of same BMC
N	Total Dropship pieces/weight entering at an ASF
0	Total Dropship pieces/weight destinating in service area of same ASF
Ρ	Total Dropship pieces/weight entering at an SCF
Q	Total Dropship pieces/weight destinating in service area of same SCF
R	Total Dropship pieces/weight entering at an AO, station or branch
S	Total Dropship pieces/weight destinating in service area of same AO, station or branch
T	Total Dropship pieces as calculated by computer
U	Total Dropship pieces as calculated by entry clerk
V	Total Plantload pieces/weight entering at a BMC
W	Total Plantload pieces/weight destinating in service area of same BMC
X	Total Plantload pieces/weight entering at an ASF
Y	Total Plantload pieces/weight destinating in service area of same ASF
Z	Total Plantload pieces/weight entering at an SCF
AA	Total Plantload pieces/weight destinating in service area of same SCF
AB	Total Plantload pieces/weight entering at an AO, station or branch
AC	Total Plantload pieces/weight destinating in service area of same AO, station or branch
AD	Total Plantload pieces as calculated by computer
AE	Total Plantload pieces as calculated by entry clerk

Notes:

- 1. This file was originally created as a comma delimited file. The version provided on the diskette, however, is an Excel spreadsheet. The format above is for the spreadsheet version.
- 2. This table is vertically divided into two parts. The top part represents total pieces for shape-form-type combinations. The bottom part represents total weight for shape-form-type combinations.

VI. Bootstrapping

File format for the following output file: boot_results.reg

This table provides bootstrap statistics for every 200th iteration. For each iteration that it prints, it provides 22 rows and 41 fields of data. Each data field is 20 characters wide, including 5 places to the right of a decimal point. These data are separated by a title that indicates the iteration number.

Each row of data represents statistics for a single table. The row definitions are as follows:

	Description
	Estimated sample mean for each value in Table 5
	Estimated standard deviation for each value in Table 5
	Estimated sample mean for each value in Table 6
	Estimated standard deviation for each value in Table 6
	Estimated sample mean for each value in Table 7
	Estimated standard deviation for each value in Table 7
	Estimated sample mean for each value in Table 8
8	Estimated standard deviation for each value in Table 8
	Estimated sample mean for each value in Table 9
	Estimated standard deviation for each value in Table 9
11	Estimated sample mean for each value in Table 10
	Estimated standard deviation for each value in Table 10
	Estimated sample mean for each value in Table 11
	Estimated standard deviation for each value in Table 11
	Estimated sample mean for each value in Table 12
	Estimated standard deviation for each value in Table 12
17	Estimated sample mean for each value in Table 13
18	Estimated standard deviation for each value in Table 13
19	Estimated sample mean for each value in Table 14
20	Estimated standard deviation for each value in Table 14
21	Estimated sample mean for each value in Table 15
22	Estimated standard deviation for each value in Table 15

Each column of data represents statistics for a single value within a table. Because there are a different number of values for each table (i.e., Table 5 has 2 values but Table 6 has 4 values), some elements within a column are always zero. For instance, row 1 and 2 provide statistics for Table 1. Since this table has only two values, then the elements of columns 3 to 41 for these rows are always zero or blank. The column definitions are as follows:

For Rows 1-2:

Column	Description
1	Statistic for MAADC pieces
2	Statistic for AADC pieces
3 - 41	N/A

For Rows 3-4:

Column	Description
1	Statistic for 3-Digit pieces
2	Statistic for 5-Digit pieces
3	Statistic for basic pieces
4	Statistic for total pieces
5-41	N/A

For Rows 9-10:

	Description
1	Statistic for percentage machinable
2	Statistic for percentage nonmachinable
3-41	N/A

For Rows 5-6, 7-8, 11-12, 13-14, or 15-16:

Column	Description
	Statistic for MADC pieces in MADC trays or sacks
	Statistic for ADC pieces in MADC trays or sacks
	Statistic for 3-Digit pieces in MADC trays or sacks
	Statistic for 5-Digit pieces in MADC trays or sacks
	N/A
	Statistic for ADC pieces in ADC trays or sacks
	Statistic for 3-Digit pieces in ADC trays or sacks
	Statistic for 5-Digit pieces in ADC trays or sacks
	N/A
	N/A
	Statistic for 3-Digit pieces in 3-Digit trays or sacks
	Statistic for 5-Digit pieces in 3-Digit trays or sacks
	N/A
	N/A
	N/A
	Statistic for 5-Digit pieces in 5-Digit trays or sacks
	Statistic for MADC packages in MADC trays or sacks
	Statistic for ADC packages in MADC trays or sacks
	Statistic for 3-Digit packages in MADC trays or sacks
	Statistic for 5-Digit packages in MADC trays or sacks
	N/A
	Statistic for ADC packages in ADC trays or sacks
	Statistic for 3-Digit packages in ADC trays or sacks
	Statistic for 5-Digit packages in ADC trays or sacks
	N/A
	N/A
	Statistic for 3-Digit packages in 3-Digit trays or sacks
	Statistic for 5-Digit packages in 3-Digit trays or sacks
	N/A
	N/A
31	N/A
32	N/A
33	Statistic for total pieces
34-41	

For Rows 17-18, 19-20, or 21-22:

Column	Description
	La conseque
	Statistic for MADC pieces on MBMC pallets
	Statistic for ADC pieces on MBMC pallets
	Statistic for 3-Digit pieces on MBMC pallets
	Statistic for 5-Digit pieces on MBMC pallets
	N/A
in a contract of the contract	Statistic for ADC pieces on BMC pallets
	Statistic for 3-Digit pieces on BMC pallets
	Statistic for 5-Digit pieces on BMC pallets
	N/A
	N/A
	Statistic for 3-Digit pieces on SCF pallets
	Statistic for 5-Digit pieces on SCF pallets
	N/A
	N/A
	Statistic for 3-Digit pieces on 3-Digit pallets
	Statistic for 5-Digit pieces on 3-Digit pallets
	N/A
	N/A
	N/A
	Statistic for 5-Digit pieces on 5-Digit pallets
	Statistic for MADC packages on MBMC pallets
	Statistic for ADC packages on MBMC pallets
	Statistic for 3-Digit packages on MBMC pallets
	Statistic for 5-Digit packages on MBMC pallets
	N/A
	Statistic for ADC packages on BMC pallets
27	Statistic for 3-Digit packages on BMC pallets
28	Statistic for 5-Digit packages on BMC pallets
	N/A
	N/A
	Statistic for 3-Digit packages on SCF pallets
32	Statistic for 5-Digit packages on SCF pallets
33	N/A
	N/A
	Statistic for 3-Digit packages on 3-Digit pallets
	Statistic for 5-Digit packages on 3-Digit pallets
	N/A
	N/A
	N/A
	Statistic for 5-Digit packages on 5-Digit pallets
	Statistic for total pieces

File format for boot_results2.reg*:

This file provides bootstrap statistics for the estimates in Table 16. Statistics are reported for every 10th iteration. For each iteration, there are 2 rows of data. The first row provides statistics for pieces in trays with at least 150 pieces. The second row provides statistics for pieces in trays with less than 150 pieces.

Position	Position	Field	Variable
From	То	Length	Description
1	23	23	Label - first row/second row (tray size)
24	41	18	Estimated sample mean
42	59	18	Estimated standard deviation

^{*} This file is the output of a program used to compute the confidence intervals presented in the response to AMMA/USPS-LR-H-105-4(b).

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS TALMO TO INTERROGATORIES OF ADVERTISING MAIL MARKETING ASSOCIATION

AMMA/USPS-LR-H-105-3. USPS Witness Daniel (USPS-T-29 at 3 line 23) references USPS LR-H-105 as the source of the "entry profile" used in mail flow diagrams which in turn become parameters in several cost models.

a. For each parameter estimated in LR-H-105 and used in USPS-T-29
Appendix I pages 5, 7 or 9 or used in the derivation of any number on these pages, please complete the following table with the exact paired references (cross walk) between the source and use of each parameter:

. Source; LR-H-105			Use: USPS-T-29 Appendix I		
Parameter	Location	Value	Standard	Name	Location (and derivation if derived)
Name	(Page, Line, etc.)		Deviation	(if different)	(Page, Line, etc.)
(1)	(2)	(3)	(4)	(5)	(6)

- b. Please confirm that USPS-T-29 makes "proper" use of the estimates that come from LR-H-113? (By "proper" we mean the proper time period(s) and in a manner consistent with the objectives of the sample design and analysis.)
- c. If part b is not confirmed, please explain why you cannot confirm to the uses of these estimates.

AMMA/USPS-LR-H-105-3 Response:

- a. There are no results from LR-H-105 used directly or indirectly in USPS-T 29 Appendix I, pages 5, 7, or 9.
- b. N/A.
- c. N/A.

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS TALMO TO INTERROGATORIES OF ADVERTISING MAIL MARKETING ASSOCIATION

AMMA/USPS-LR-H-105-4. The following questions refer to Table 16 (LR-H-105 page 24; hardcopy version).

- a. Please provide the data and the source(s) used to compute the "Percent of Pieces in Trays with at least 150 pieces".
- b. Please provide the 95% confidence interval for the "Percent of Pieces in Trays with at least 150 pieces".
- c. How many total letter trays were observed?
- d. Please confirm that the "Percent of Pieces in Trays with at least 150 pieces" on page 24 is equal to 86.0% (at one significant decimal percentage point) and that this is the source (of 86.03% at two significant decimal percentage points) referred to by Witness Thress USPS-T-7 (at 225 line 24).
- e. If you cannot confirm part d, please show the source of the 86.03% to which Witness Thress referred in the "Standard Mail Characteristics Study".

AMMA/USPS-LR-H-105-4 Response:

- a. The source data for Table 16 are included on the diskettes provided in LR-H-105. The programs that process these data are documented in Appendices E and F. See the description of the roll_master.f FORTRAN program as documented in Section III of Appendix E for specific information.
- The percent of line-of-travel carrier route letters in carrier route and 5-Digit carrier routes trays with at least 150 pieces is 86.0 percent as reported in
 Table 16. The 95 percent confidence interval for this estimate is the range from 77.5 percent to 94.5 percent.

- c. There were 16,711 carrier route and 5-Digit carrier routes trays inventoried in the survey that contained only line-of-travel pieces. Of these, 336 were further examined to determine piece and package information.
- d. Confirmed.
- e. N/A

1 CHAIRMAN GLEIMAN: Does any party have additional

- written cross-examination for the witness?
- If not, we'll proceed with oral cross-examination.
- 4 One participant, the Alliance of Nonprofit Mailers, has
- 5 requested oral cross-examination. Does any other
- 6 participant wish to cross-examine the witness?
- 7 If not, Mr. Thomas, you can begin when you're
- 8 ready.
- 9 MR. THOMAS: Thank you.
- 10 CROSS EXAMINATION
- BY MR. THOMAS:
- 12 O Dr. Talmo, my name is Joel Thomas. I will be
- cross-examining you on behalf of the Alliance of Nonprofit
- 14 Mailers this morning.
- 15 I'm going to ask you about both Library References
- 16 105 and 195, but I will not really be asking you about 190.
- 17 The Alliance is interested in circumstances surrounding
- these studies as well as the studies themselves, and so let
- 19 me start by asking you when did Christensen Associates and
- 20 when did you first learn that this kind of study might be
- 21 done?
- MR. ALVERNO: Objection on the grounds of
- 23 relevance. I don't see that when a particular study was
- 24 commenced is necessarily germane to the Commission's
- evaluation of the evidence that's been presented.

1 CHAIRMAN GLEIMAN: Well, Mr. Thomas, would you

- 2 like to comment before I rule?
- 3 MR. THOMAS: Well, I mean, we've gone through a
- 4 long process of trying to get hold of some of this
- 5 information, and given the prior rulings in this case, I am
- 6 left with this forum in which to attempt to get this
- 7 information.
- 8 CHAIRMAN GLEIMAN: I don't see a problem with the
- 9 witness answering if he can. If it produces a response that
- is not relevant and can't be used in any manner, well, we'll
- just waste a couple lines of transcript. But if the witness
- 12 can answer, let's just get on with it.
- 13 THE WITNESS: To the best of my recollection it
- 14 would have had to sometime in mid- to late calendar year
- 15 '96.
- 16 BY MR. THOMAS:
- 17 Q Did Christensen Associates prepare and submit a
- 18 proposal to do this study?
- 19 A Yes, we did.
- 20 O Did you prepare that proposal?
- 21 A I can't say that the proposal was produced under
- 22 my direct supervision.
- 23 Q It was not?
- 24 A It was not. I did participate in it.
- 25 Q You participated in the development of it but you

- 1 didn't supervise it?
- 2 A That's correct.
- 3 Q Who else was involved in its preparation?
- 4 MR. ALVERNO: Objection. I believe that, you
- 5 know, the participants at Christensen Associates who were
- 6 involved in, you know, drafting work orders or proposals is
- 7 simply not relevant to the Commission's --
- 8 MR. THOMAS: I'd like to know who was involved --
- 9 MR. ALVERNO: Evidence.
- 10 MR. THOMAS: In putting these studies together.
- 11 MR. ALVERNO: I think perhaps the relevant
- 12 questions here relate to when the data was actually
- 13 collected as opposed to when --
- MR. THOMAS: Well, we'll get to that.
- 15 MR. ALVERNO: Working on the materials.
- 16 CHAIRMAN GLEIMAN: This has been a difficult
- 17 process so far, and I'm well aware that the Postal Service
- 18 thinks that I've made the process more difficult and more
- 19 complicated than it needed to be, and they're entitled to
- their opinion, and perhaps they'll continue to hold that
- 21 opinion as I rule against the -- overrule the objection and
- just would like the witnesses to respond to the extent they
- 23 can and let's move on.
- THE WITNESS: Would you repeat the question?
- 25 BY MR. THOMAS:

1 Q Yes, the question is who prepared the proposal to

- 2 do the study that is now Library Reference H-105?
- 3 A I would have to say that the proposal was done
- 4 under the supervision of Diane C. Christensen.
- 5 Q Do you know to whom it was submitted?
- 6 A Witness Daniel was the person at the Postal
- 7 Service who was -- acted as our point of contact.
- 8 O Do you know when the contract was itself awarded?
- 9 A No, I do not.
- 10 Q Did you or did anyone else at Christian and
- 11 Associates hold discussions or correspond with the USPS
- 12 personnel or representatives before or after the contract
- 13 for the study was awarded regarding what the Service wanted
- the study to do, the purpose of the study?
- 15 A Before or after? What are you --
- 16 O Before or after the contract was awarded.
- 17 A Yes.
- 18 O Can you summarize those discussions?
- 19 A The Postal Service asked for these mail
- 20 characteristics studies to support the work that they were
- 21 doing and we designed them. I don't know how
- 22 specific -- what kind of specificity you are asking for.
- 23 Q Let me ask you this, had any study like this been
- 24 done before?
- 25 A Yes.

1 Q Was the purpose of this to replicate what was done

- before or were changes made?
- 3 A This is the -- well, are you asking to replicate
- 4 the results or to replicate the process?
- 5 Q Replicate the process.
- 6 A This study was -- these studies are very similar
- 7 in process to the previous studies that were done.
- 8 Q Do you know who did those studies?
- 9 A Yes.
- 10 Q Can you tell me who? Would you tell me who did
- 11 those studies?
- 12 A I did a few of those studies.
- 13 Q While you were at Christensen?
- 14 A Yes.
- 15 Q When were those studies done?
- 16 A Those studies were done prior to and for the
- 17 purpose of the non-profit reclassification.
- 18 Q At the moment I was asking about LRH-105. Were
- 19 both non-profit and regular-rate mail studied for purposes
- 20 of rate -- of the non-profit reclassification case?
- A No, they weren't, only non-profit.
- 22 O Was regular-rate -- a study done for regular-rate
- before reclassification for the regular-rate mail, MC95-1, I
- 24 think?
- 25 A I'm aware that it was, but it was not conducted by

- 1 our firm.
- 2 Q All right. The study that is now -- all right.
- 3 Strike that.
- 4 Can you describe any differences between the study
- 5 that was done previously and the study that you did of
- 6 regular-rate mail, Standard A regular rate.
- 7 A You're asking me to compare my study for
- 8 non-profit re-class for non-profit third-class?
- 9 Q No, I was asking actually about comparing your
- 10 study of regular-rate Standard A with the prior study that
- 11 was done.
- 12 A I am not intimately up on the details of that
- 13 study. It's been some time since I've looked at it.
- 14 Q When you designed what is now Library Reference
- 15 H-105, did you base it on the study that was done before, or
- 16 did you start from a clean sheet of paper, so to speak?
- 17 A Virtually a clean sheet of paper.
- 18 Q So, continuity was not important at that point.
- 19 A I don't know if I'd characterize --
- 21 A What do you mean by continuity?
- 22 Q Well, it wouldn't be important to be able to
- 23 compare, then, your study with the prior study to see if the
- 24 two produced similar or significantly dissimilar results.
- 25 A We do not preclude that possibility. We do not

- 1 conduct such a comparison.
- 2 Q But your study wasn't set up so that it would
- 3 produce results that could be easily compared.
- A Well, in the sense that we're looking at mail
- 5 make-up and what mailers are presenting to the Postal
- 6 Service, I believe both studies do that, so if a person
- 7 knows what both studies are reporting, they may be able to
- 8 make a comparison.
- 9 Q Did somebody indicate to you that they wanted
- something different than what was done before? Is that why
- 11 you redesigned it?
- 12 A In the course of discussion, there was this
- general feeling that we hope that it could be -- I guess
- 14 hope that it could be improved in some sense. I don't know
- 15 -- but I'm speaking without knowing what exactly that would
- mean relative to the previous study. Since I did not
- 17 produce the previous study, I'm not aware of its actual
- 18 design.
- 19 Q Who at Christensen decided what would be studied
- and how it would be studied? Did you do that, or was it
- 21 done by somebody else?
- 22 A I participated in that.
- 23 Q So, you did not solely design the study.
- 24 A No, I did not.
- 25 Q Who was the principle designer of the study?

1 A Well, I may have been the principle designer of

- the study, but I was not the sole designer of the study.
- 3 Q Who else played a significant role, then?
- 4 A There were several people. Do you want all their
- 5 names?
- 6 0 Sure.
- 7 A Diane Christensen, who I mentioned before, Carl
- 8 Degen, Sam Cutting, Paul Loetscher, and -- those are the
- 9 names.
- 10 Q Okay.
- Now, let me understand. Has a similar study to
- 12 LRH-105 of regular-rate non-Standard A mail been done since
- 13 this study?
- 14 A Not that I'm aware of. I have to say no.
- 15 Q In your testimony -- or in the library reference
- 16 is a reference to inflating various data. In your usage, is
- 17 the word "inflate" equivalent to the word "expanding" or
- 18 "expand" data?
- 19 A Yes.
- 20 Q Can you explain to me how one would randomly
- 21 select offices with probability in proportion to their
- 22 Standard A regular-rate revenues? This is stated on page
- 23 two of Library Reference 105 that this was done. How does
- 24 one do that?
- 25 A There are a number of post offices in a particular

1 stratum in the survey design. Each of those post offices

- 2 has a certain amount of revenue. They're not necessarily
- 3 equal to each other. And we're going to select post offices
- 4 from that stratum at random, but not each post office has an
- 5 equal probability of being selected. Instead, the
- 6 probability is equal to their share of revenue in the
- 7 stratum.
- 8 Q Okay, in toto there are 40 strata, right?
- 9 A Forty?
- 10 Q Forty.
- 11 A No, that's not correct.
- 12 Q How many were there?
- 13 A For the inflation purpose -- are you talking
- 14 standard -- regular rate or non-profit?
- 15 Q The regular rate at this point.
- 16 A In the regular rate, there were 24 strata.
- 17 Q So how were those 24 strata selected? What was
- 18 the basis for breaking?
- 19 A There are not 24 Post Office strata. There are 24
- 20 mailing types, 24 strata of various -- total various
- 21 dimensions. See, there were three -- let me get my numbers
- 22 right. There were three office size strata and there were
- four mailing size strata and there were two shape strata.
- 24 If you multiply, three times four times two is 24.
- Q All right, there were 24 strata and how many Post

- 1 Offices were sampled then?
- 2 A There were 40 Post Offices.
- 3 Q At that rate, you could get only a little over an
- 4 average of one per strata; is that correct?
- 5 A No. There were only three -- there were only
- 6 three strata in the Post Office dimension.
- 7 Q So you would be dealing with a little over a
- 8 dozen, 13 in each?
- 9 A Forty divided by three is an average.
- 10 Q On page 3, you indicate that it could be argued
- 11 that the break in the strata for consolidation purposes
- should have been at the 750,000 pieces. But then you went
- on to say that it was uncertain whether there would be a
- sufficient number of transactions, over 750,000 pieces,
- available during the sample period at the selected offices
- 16 to make such a strata efficient.
- 17 How many transactions do you need to make a strata
- 18 efficient?
- 19 A That would require some computation that was not
- 20 done at the -- to do this. To decide whether a strata is
- 21 efficient requires some prior information on the variability
- of the characteristics in that strata and we do not have any
- 23 prior information so it was done on a consensus judgment on
- 24 the part of the team that designed the survey.
- 25 Q So the prior survey that you referred to did not

take an approach that required the development of similar

- 2 strata?
- 3 A The strata in that survey, to the best of my
- 4 understanding, were different than this.
- 5 Q Was what?
- 6 A Were different.
- 7 O The strata were different?
- 8 A Did not use the same survey design stratification
- 9 so I couldn't use it.
- 10 Q Is there a way to determine -- well, can you
- explain in a little bit more depth how many samples you need
- or how many transactions need to be in sample to have a
- 13 valid result?
- 14 A Actually, it doesn't matter how many you have to
- get an unbiased estimate for the values that we're
- 16 presenting. But like any survey ever designed, the more
- observations you have, the more reliability you can place on
- 18 the result.
- 19 Q Okay, I don't understand that answer when compared
- 20 to the statement, it was uncertain there would be a
- 21 sufficient number of transactions over 750,000 pieces
- 22 available during the sample period at the selected Post
- Offices to make such strata efficient. You seem to think at
- the time the testimony was written that a certain number of
- transactions were needed. I mean, the answer is, none

were -- I mean, why couldn't you have made the break at 750.

- 2 if you didn't need any particular number of transactions?
- 3 A You need a number of -- I was trying to clarify --
- 4 Q Okay.
- 5 A You need a number of transactions to get any
- 6 answer at all and then you need more transactions, more
- 7 observations to become more efficient or lower variances,
- 8 lower standard errors of your estimates.
- 9 Q Is there any lower limit on how many you think you
- 10 need to have reasonably?
- 11 A We did not have prior knowledge information in
- order to know what that number would have been.
- 2 So these, I mean, when you wrote the report you
- 14 knew because the samples had been done. And you could have
- 15 then adjusted for that.
- 16 A In fact, we left it this way and reported the
- 17 standard errors based on this stratification.
- 18 O If you conducted the study and you had gotten one
- transaction over 750,000 pieces, would that be sufficient?
- 20 A Sufficient for what?
- 21 Q To produce reasonably valid results.
- 22 A If every transaction in the country, over 750,000
- pieces, was identical then one would be enough.
- Q How would you know whether they were sufficiently
- similar to that one you had sampled to know whether you had

- 1 a valid result or not?
- 2 A I don't know ahead of time.
- 3 Q Do you know now?
- 4 A I do not know now.
- Well, you are asking me is the data available to
- 6 perhaps do that kind of analysis?
- 7 Q I am more interested in whether it has been done.
- In other words, we have the study, which is being
- 9 offered in evidence to prove something, and it seems to me I
- 10 am being told that you don't know what it proves and you
- don't know how confident you are that it represents what is
- really going on in the real world.
- 13 A The standard errors, the confidence intervals of
- 14 these estimates are reported in the report -- are in the
- 15 report.
- 16 Q How large -- okay. They are reported. Is there
- 17 any limit on how large the standard error can be and still
- 18 give you a study that you think can be relied upon to -- I
- mean is any amount of variability acceptable?
- 20 A I am not the judge of that.
- 21 Q So you didn't -- all right.
- Now let's turn over and take a look at LRH-195.
- 23 COMMISSIONER LeBLANC: Counsel, excuse me for
- interrupting you, but if I don't ask this now, I probably
- 25 will forget it.

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1	IVIK .	LOUMAS:	Please.

- 2 COMMISSIONER LeBLANC: Who made that decision?
- 3 THE WITNESS: Which decision?
- 4 COMMISSIONER LeBLANC: That counsel was just
- 5 talking to you about, about the standard deviations in all
- 6 of these.
- 7 Did I understand you to say you did not make that
- 8 decision?
- 9 THE WITNESS: I am not sure what decision you are
- 10 asking me about.
- 11 CHAIRMAN GLEIMAN: Can I help my colleague out?
- 12 Your response to the question about the confidence
- intervals was that you weren't the judge of what was an
- 14 appropriate range of error or confidence interval, so the
- question is if you weren't the judge, who was the judge?
- 16 COMMISSIONER LeBLANC: Thank you, Mr. Chairman.
- 17 THE WITNESS: Well --
- 18 COMMISSIONER LeBLANC: You did the work, did you
- 19 not?
- THE WITNESS: We did the work. The confidence
- 21 intervals are a result. They are --
- 22 COMMISSIONER LeBLANC: Were you told --
- 23 THE WITNESS: We accept them. This is what the
- 24 survey said are the results of the confidence intervals.
- There's two estimates here -- the actual estimate

of the characteristics and its confidence. They are two

- 2 separate things, and they are both results of the survey.
- 3 COMMISSIONER LeBLANC: Were you trying to reach a
- 4 certain number?
- 5 THE WITNESS: In a survey design you hope to have
- 6 low standard errors. It's one of the goals. The
- 7 stratification and our attempts to draw lines and to define
- 8 the strata is an attempt to keep the standard errors of the
- 9 results low.
- 10 COMMISSIONER LeBLANC: So you were trying to reach
- 11 a certain error?
- THE WITNESS: We were trying to make decisions
- that would always lower the standard error.
- 14 There were no targets necessarily set ahead of
- 15 time.
- 16 COMMISSIONER LeBLANC: So the Postal Service did
- 17 not have any standard or target or Christensen Associates
- 18 did not have any targets -- excuse me.
- 19 THE WITNESS: There were never any explicit
- 20 targets set out.
- 21 COMMISSIONER LeBLANC: By either party?
- THE WITNESS: That I am aware of.
- 23 COMMISSIONER LeBLANC: By either party?
- 24 THE WITNESS: By either party. The objective was
- to collect as much data as we could and to design it in a

- way to keep the standard errors as low as possible.
- 2 COMMISSIONER LeBLANC: Thank you. Thank you,
- 3 counsel. I am sorry for the interruption.
- 4 MR. THOMAS: No problem, thank you.
- 5 BY MR. THOMAS:
- 6 O Okay. Turning now to LRH-195, again when was
- 7 Christensen contacted about doing this study? Do you know?
- 8 A At the same time.
- 9 Q At the same time as 105?
- 10 A Yes.
- 11 Q Were these two contracts let together?
- 12 A Yes, they were.
- 13 Q Even though one study was to be done later than
- 14 the other?
- 15 A They were conducted at the same time.
- 16 O They were conducted at the same time, so that the
- 17 data in LRH-105 and LRH-195 were taken when?
- 18 A I don't have the exact dates in front of me, but
- 19 it was earlier this past winter, January, February.
- 20 Q Late January through early March?
- 21 A Yes.
- 22 Q 1997?
- 23 A Yes.
- 24 O Now you have done a previous study similar to this
- 25 study for nonprofit?

- 1 A Yes, I did.
- 2 Q And that was done in preparation for what became
- 3 MC96-2?
- 4 A That's correct.
- 5 Q When was the data for that study taken?
- 6 A I don't recall.
- 7 Q Roughly?
- 8 A Roughly -- I don't know -- very roughly perhaps
- 9 six months before the filing.
- 10 Q Which would have been in the early fall of --
- 11 before the filing date or before the decision to file?
- 12 A I don't recall.
- 13 Q Okay. Can you tell me where that study can be
- 14 found?
- 15 A It's one of the library references filed with my
- 16 testimony in that case.
- 17 Q It was filed as a library reference in that case.
- 18 A Yes.
- 19 O Okay. That data seems rather current. It was not
- 20 sufficient for use in this proceeding? I mean we've had
- 21 some material in this case that has been 25 years old. This
- 22 was a mere six months or so different than the data selected
- 23 to re-do that study?
- I mean, from what you're saying, I gather that the
- data was collected only about six months apart for these two

- 1 studies.
- 2 A No, it was more than six months.
- 3 Q Was it more than a year?
- 4 A I would have to say so, yes.
- 5 Q I am sort of curious as to why the results from
- 6 the -- did you have an opinion as to why the results from
- 7 the prior study would not be sufficient for these purposes?
- 8 A Well, we had two opportunities. One is that these
- 9 data for this non-profit characteristics survey were
- 10 collected after re-class, and the other is that we had the
- opportunity to collect more data. Getting back to your
- 12 efficiency and error thing, we went and collected
- information on more mailings.
- 14 Q You said that this was done after re-class. Do
- 15 you know when re-class took effect?
- 16 A Exact date, summer of '96.
- 17 Q Summer of '96?
- 18 A Oh, non-profit -- I believe it was fiscal year
- 19 AP-1. I'm not exactly sure. I think it was AP-1 in '97.
- 20 O All right. So that the data was being collected
- 21 about three months after -- four months after the effective
- 22 data of re-class for non-profits.
- 23 A That's correct.
- 24 O But about a -- about nine months after re-class
- 25 for regular-rate mail.

- 1 A That's correct.
- Q Did it occur to you that that might skew these
- 3 -- the figures? Were you concerned about that?
- 4 A Yes, that subject did come up.
- 5 Q And what was your --
- A Well, we were pleased that we could wait until
- 7 after re-class to collect the data. We -- the non-profits
- 8 knew that this was coming along, the re-class.
- 9 Q Yes.
- 10 A So, there is some sense that perhaps they didn't
- need as much time. A lot of the bugs had gone out of the
- 12 system through the regular rate. Now, I know their mailers
- aren't the same, but the information was out there.
- So, it would have been nice to wait longer. There
- 15 was limitations to that.
- 16 Q Well, in fact, the -- when reclassification was
- 17 proposed for the regular-rate mailers, the proceeding took
- about 10 months, didn't it, to complete?
- 19 A I suppose.
- 20 Q And it was several months before it was
- 21 implemented, so that the mailers had a year or more to see
- the actual proposal before there was an implementation. Is
- 23 that right? Before the implementation date in the summer of
- 24 1996.
- 25 A I'm not aware of all the dates in the schedule of

- 1 that.
- Q Okay. Do you know when the -- you were a witness
- in, I gather, MC96-2. Do you know when that was filed?
- 4 A I can't recall what exact date.
- 5 Q If I suggested it was in April of 1996, would that
- 6 sound familiar?
- 7 A That would be -- you know, I can accept that.
- 8 Q And the -- there was a negotiated settlement to
- 9 that, was there not?
- 10 A Yes, that I do recall.
- 11 Q Okay. And the implementation occurred in about
- 12 October of 1996.
- 13 A Okay.
- 14 Q So, that's only about six months after they found
- out that there was going to be re-class for them and saw an
- 16 actual proposal.
- 17 MR. ALVERNO: Objection. I don't know if seeing
- an actual proposal is a fact that's been established in this
- 19 record for any non-profit mailer or if communications were
- 20 made well before that time to non-profit mailers about what
- 21 was coming down the pike for them.
- 22 MR. THOMAS: All right. We can get into that
- 23 later.
- 24 CHAIRMAN GLEIMAN: I take it you withdraw the
- 25 question.

1 MR. THOMAS: I'll withdraw that question. I can

- 2 establish that.
- BY MR. THOMAS:
- 4 Q Well, I do want to ask -- did anybody express
- 5 concern about any other factors that might be influencing
- 6 mailing practices among non-profit mailers at the time that
- 7 the -- you were preparing to do this study and that the
- 8 study was conducted?
- 9 A Not -- no, I can't recall anything.
- 10 Q There was no discussion of implementation of
- 11 eligibility requirements?
- 12 A No.
- 13 Q For non-profit mail. That was not brought up to
- 14 you?
- 15 A That was not brought up.
- 16 O Are you now aware -- you're unaware that that is.
- in fact, something that has happened in the last few years,
- or did you know about it but it wasn't brought up to you?
- 19 A I don't know about it. About new eligibility
- 20 requirements?
- 21 Q You don't know anything about eligibility
- 22 requirements for non-profit mail.
- 23 A No.
- 24 Q Can you describe the differences particularly
- 25 between this study, if any, and the one that was done a year

- 1 or so earlier by you?
- 2 A For non-profit.
- 3 Q For non-profits, yes, this time.
- A Best of my recollection, I would say the main
- 5 improvement was that sampled -- more sampled containers were
- 6 opened and inventoried than the previous study.
- 7 Q At one point in, I think, the introduction to
- 8 your -- to Library Reference 195, you state that
- 9 stratification of -- in dealing with stratification of
- transactions, there was a suggestion or the question I have
- is could they be based on billing determinants within each
- 12 strata? Could the strata have been designed based on
- billing determinants?
- 14 A I'm not sure I understand your question.
- 15 Q Well, are the strata in fact based on data from
- 16 billing determinants?
- 17 A I'm aware that there is some other formal
- 18 definition of billing determinants. The -- when I used the
- 19 words billing determinants in this report, it refers to
- 20 strictly the characteristics of the mail as reported in the
- 21 data collection systems of the postage statements at the
- 22 acceptance units, which is the permit and BRAVIS systems.
- Q Let me ask you this then. What is your definition
- of consistency, I guess? How is it defined and measured for
- 25 purposes of this study?

- 1 A Consistency of what?
- 2 Q You have -- in the strata design. I mean, you
- 3 state, furthermore, stratification of transactions should be
- 4 based on consistency of billing determinants within each
- 5 strata. So I am asking, how did you define consistency for
- 6 purposes of achieving that goal?
- 7 A It was done in a -- let me look.
- 8 Well, consistency essentially means similarity of
- 9 the characteristics that were -- we were able to use.
- 10 Q Can you tell me which characteristics those were?
- 11 A In Table 1, we are using the volume shares by
- 12 carrier, 3, 5, presort and basic. Or the use of piece and
- 13 pound rate and somewhat importantly was this notion of
- 14 adjusted revenue per piece.
- 15 Q So those were the criteria that were looked at but
- 16 carrier route in Table 1 was the dominant one?
- 17 A We had no prior feeling of dominance of which one
- 18 should be dominant. We looked at all of these as a group
- 19 and in a subjective way tried to see what made the most
- 20 sense to us.
- 21 O we are out of the realm of science and into art at
- this point? I mean, it's what looks good?
- 23 A I mentioned before that we did not have prior
- 24 estimates of the variances in order to -- to draw the
- 25 stratification.

1 Q You had done this study a year or so earlier, a

- 2 similar study. But when it came time to do this one, you
- 3 didn't have prior data on which to base this?
- 4 A That data was not used.
- 5 Q It was available but it was not used, so you
- 6 didn't have anything that you were willing to use?
- 7 A That is correct.
- 8 Q Do you know why it wasn't used? Was there a
- 9 reason?
- 10 A I believe it would have forced us to draw the
- 11 stratification in exactly the same way. If we were to draw
- 12 the stratification in exactly the same way as the previous
- 13 study, then those variances from the previous study could be
- 14 used to tell us how many observations, the relative number
- of observations in each of those strata we would have to
- 16 take.
- 17 Q Wouldn't that be an advantage?
- 18 A We also like this method. Because it allows us to
- 19 adjust the strata for any changes in the mail profile that
- 20 has occurred between the two time periods.
- 21 Q How would you know how the mail profile had
- 22 changed if the purpose of this study was to determine how
- 23 the mail profile had changed?
- 24 A I am referring to the mail profile in terms of
- 25 these characteristics that we used to stratify on, that we

- 1 just mentioned.
- 2 Q Can you explain how it had changed? It had
- 3 changed, you say, then during that time?
- 4 A We did not look to see whether it had changed. We
- 5 allowed the possibility that it could have changed and we
- 6 used this new data.
- 7 Q Okay.
- 8 What was the source of data on Standard A
- 9 non-profit rate revenue -- or revenues in volumes by post
- 10 offices? Where did that come from?
- 11 A Which data?
- 12 Q The data for -- in other words, you're now
- 13 stratifying post offices based on revenues and volumes,
- 14 right?
- 15 A Revenues.
- 16 Q Revenues only.
- 17 A Yes.
- 18 Q But I guess I'm assuming in there implicitly
- 19 somewhere there must be a volume --
- 20 A There's a relationship, sure.
- 21 Q Where did the data you used come from? Where did
- the data on volumes come from?
- 23 A The data -- well, the stratification was done on
- 24 revenue, not on volume.
- Q All right. On revenue. Where did the revenue

- 1 data come from?
- 2 A The majority of the revenue is coming from the
- 3 trial balance for the Postal Service, the revenue report.
- 4 Q And that gives revenue by post office?
- 5 A It gives revenue by post office.
- 6 Q Okay.
- 7 Now, when you say it came from there, how did --
- 8 you got it. Did anybody check this, or did you just get a
- 9 list of post offices?
- 10 A It's a very standard frequent report.
- 11 Q You took it off a frequent report.
- 12 A Yes.
- 13 Q And then did you at that point select the post
- 14 offices?
- 15 A Randomly select the post offices?
- 16 O Yes.
- 17 A There are a few steps still.
- 18 Q Could you describe them?
- 19 A Okay. The trial balance data is only the permit
- 20 imprint revenue.
- 21 Q Right.
- 22 A An estimate of -- well, the stamped and metered
- 23 revenue was taken from the PERMIT and BRAVIS systems for
- 24 those offices that report through that -- those systems, and
- 25 then an estimate of the stamped and meter revenue for

offices that are not in those systems was made. Those three

- 2 pieces together formed the revenue.
- 3 Q What was the basis for the estimate from
- 4 non-PERMIT or BRAVIS system post offices? How did you make
- 5 an estimate of that volume or that revenue?
- A All post offices, regardless of whether they use
- 7 the PERMIT or BRAVIS systems, are -- okay. Before we add
- 8 that -- before we have the stamped and metered -- any of the
- 9 stamped and metered data for any kind of office, the offices
- 10 are ranked based on their PERMIT data from highest to
- 11 lowest.
- 12 Q PERMIT being P-E-R-M-I-T.
- 13 A No. Sorry. Permit imprint data --
- 14 Q All right.
- 15 A -- from the trial balance.
- 16 Q Okay.
- 17 A They're ranked by that, and then they're split
- 18 into 20 equal revenue strata.
- 19 Q Right. One-twentieth of all the revenues in each
- 20 band.
- 21 A One-twentieth of all the revenue, so -- but not
- 22 1/20th of all the offices, because they're ranked.
- 23 Q Right.
- 24 A Okay. Then the stamped and metered data -- as
- 25 offices fall in their respective strata, their stamped and

1 metered revenue is added in. If the stamped and metered

- 2 came from the PERMIT and BRAVIS system, it was added in to
- 3 that strata.
- 4 Q Uh-huh.
- 5 A If they were an office that wasn't a PERMIT and
- 6 BRAVIS office, we looked at the ratio of permit imprint
- 7 revenue to stamped and metered revenue of other of the
- 8 PERMIT and BRAVIS offices in their strata and applied that
- 9 ratio to their permit imprint revenue to get an estimate.
- 10 Q So, you assumed there was a continuity between
- 11 those.
- 12 A Yes.
- 13 Q Let me see if I can find this. You indicate at
- one point that you were selecting post offices based on
- 15 consistency of billing determinants by strata. What would
- cause a post office to have inconsistent billing
- 17 determinants by strata? I don't understand.
- 18 A It's whether the strata are consistent, not
- 19 whether the post office is in the strata. We are not --
- 20 each post office is not in a separate strata.
- 21 Q Right.
- 22 A So, there are groups of post offices in each
- 23 stratum, and we're looking at the characteristics of the
- 24 entire stratum.
- Q Okay.

- 1 A Now --
- Q Okay. I guess the question would be how
- 3 consistent does it need to be?
- 4 A I think that question was already answered.
- 9 You think it's the same as the other one we went
- 6 through regarding consistency?
- 7 A Yes.
- 8 Q In that case, we can we turn momentarily to Table
- 9 1 in LR H-195, which is on page nine?
- 10 A Okay.
- 11 Q The first three office sizes that were ultimately
- 12 grouped into a mega-strata of some kind --
- 13 A Right.
- 14 Q -- have the most inconsistency, don't they? You
- have one that goes from 14.26 percent to 37.75 percent, far
- and away the largest differential within any of these
- 17 groups.
- 18 A You're correct in that the percentage difference
- in the carrier route between stratum one and three is the
- 20 highest absolute difference.
- Q Why were they grouped together, then, if
- 22 consistency by billing strata was important, by billing
- 23 determinants within a strata?
- 24 A It was our judgement that this was sufficient to
- 25 set this line at this point.

1 Q I guess the question would be, this is, then, art

- 2 not science. I mean it looked okay?
- 3 A It looks okay, and it's somewhat defensible. The
- 4 other two strata could account for it. And recall that
- 5 there is also a mailing-size strata, and that could explain
- 6 the difference. It may not, but it could explain the
- 7 difference.
- 8 Q Is it possible that the exclusion of or the
- 9 reliance on imprint to break the initial strata out could
- 10 have skewed the results of the study if far more mail were.
- in some size Post Offices, were metered or stamped?
- 12 A That's possible. But to the best of my
- recollection, it doesn't happen to a great extent.
- 14 Q In LRH-105, you stated at one point that you had
- taken into consideration recent changes in mailing
- 16 requirements and noted again that you included only
- 17 post-reclassification transactions from the PERMIT system.
- And, by that, I now mean this P-E-R-M-I-T system. But in
- 19 your description of LRH-195, you don't reflect any
- 20 consideration of recent changes in nonprofit mailing. Why
- 21 not?
- 22 A That's because in fiscal year '96, we did not have
- post-reclassification data on non-profit mail.
- Q I thought that this data was all drawn at the same
- 25 time and --

- 1 A The design of the surveys was done prior to the
- 2 collection of the data.
- 3 Q Right. Okay.
- 4 A The design of the survey was based on
- 5 characteristics of the PERMIT and BRAVIS data in '96.
- 6 Q In '96?
- 7 A For non-profit, we used fiscal year '96 and for
- 8 regular rate, we used post-reclassification '96.
- 9 Q Post July?
- 10 A Yes.
- 11 Q Can you just state briefly what Account 41414 is?
- 12 A I believe that's non-profit permit imprint
- 13 revenue.
- 14 Q But not all non-profit standard A mail revenues
- 15 would be in that account then?
- 16 A That's correct. It would not include metered and
- 17 stamped revenue.
- 18 Q Now, in this study, and we touched on this in 105
- 19 but in 195, who decided to utilize 40 Post Offices?
- 20 A It was a decision made by the team. I was in
- 21 charge of the team.
- Q Okay. Can you tell us what the principal
- 23 considerations were in deciding that on that number?
- 24 A It was a feeling that we could get a good number
- of mailings, transactions from 40 Post Offices, that 40 Post

1 Offices would also share the work load across the field to

- 2 collect the data of conducting the survey.
- 3 Q Isn't 40 offices a fairly small number compared to
- 4 the total number of Post Offices? It's a fairly small
- 5 sample base, isn't it? You are going to take data for six
- 6 weeks from only 40 Post Offices?
- 7 A The data gave us the results that we have,
- 8 including the standard errors that we report.
- 9 Q Who made the actual selection of the Post Offices?
- 10 Did you do that?
- 11 A Who made the actual selection? I don't recall who
- made the actual selection of the Post Office. It was done
- by a random number generator and somebody on a machine.
- 14 Q The Post Offices each have numbers or something so
- 15 you can -- like Social Security numbers so you can take the
- 16 last two digits and pick them that way? Is --
- 17 A You want the algorithm that we used?
- 18 O I am just curious as to how you randomly selected
- 19 the Post Offices. I mean, what, you put them all in a hat
- 20 and pulled it out?
- 21 A No. The question was previous that each Post
- 22 Office did not have an equal probability of being selected
- 23 in its stratum. Instead, we had the revenues and the
- 24 probability of selection was equal to the revenue.
- 25 Q But given within the revenue, you know, strata

- 1 that it was then at, how --
- 2 A They were ranked according to the revenue share,
- 3 okay?
- 4 Q Right.
- 5 A They were each assigned within their ranking they
- 6 were assigned the cumulative total of their share. So the
- 7 first office cumulative total was just its share. The
- 8 second office had a value assigned to it which was its share
- 9 plus the previous office, et cetera, until the last office
- 10 had an assignment of 1.0.
- 11 Q Of the ones that were selected, you're talking
- 12 about now?
- 13 A I'm talking about all the offices in the stratum.
- 14 Q All right.
- 15 A Then a random number between zero and one was
- 16 chosen and the -- and the office that held that much of the
- density of the unit interval was chosen.
- 18 Q A number between zero and one was picked, did you
- 19 say?
- 20 A Yes, at random, a long decimal number by computer
- 21 was picked.
- 22 Q Okay.
- 23 A And the Post Office whose cumulative total was
- 24 higher than that number, the next office that had a
- 25 cumulative total of revenue share higher than that number

1 was picked. And then another random number was picked and

- 2 the next office was selected. In that way, each office had
- 3 a probability of being selected equal to its revenue.
- 4 Q Okay. All right. Okay, on page 2 in paragraph 3
- of the first section there you make a reference to a revenue
- 6 control total. What is a revenue control total?
- 7 A That is a number that we will inflate or expand
- 8 the sampled transactions revenue to.
- 9 Q Can you give an example of how that works?
- 10 A If the stratum revenue control were \$1 million and
- in our survey we sample transactions in that stratum and the
- revenue from those transactions was \$1,000, then we would
- inflate 1,000 times to 1 million. We would inflate all the
- data and all the characteristics in that stratum by 1,000.
- 15 Q So if all of the strata have an equal revenue then
- that number is the same for all strata?
- 17 A There are only three strata -- okay, there's two
- 18 reasons that's not true.
- 19 O Oh.
- 20 A There were 20 equal revenue strata based on --
- 21 Q Right.
- 22 A Several reasons it's not true. The 20 equal
- 23 revenue strata --
- 24 Q Right.
- 25 A Were based on permit imprint revenue --

- 1 Q Right.
- 2 A Um --
- 3 Q Oh, and then you add --
- 4 A From --
- 5 O To that.
- A Postreclass -- okay, once these offices were
- 7 assigned to the 20, we then used their FY '96 revenue as a
- 8 control.
- 9 Q Okay.
- 10 A Then the strata were not 20 anymore, they were
- 11 collapsed. There were the first three, then the next bunch.
- 12 So now we have three office strata, and they're not of equal
- 13 revenue size anymore. And then those -- then there's the --
- those three strata are also broken into 12 other strata by
- the office mailing size and the shape.
- 16 Q Okay. So each cell wound up having its own
- 17 revenue control --
- 18 A Each of the 24 has its own --
- 19 O In this one I think we're at 18.
- 20 A Oh, I'm sorry. You're right. This is nonprofit.
- 21 Right.
- 22 CHAIRMAN GLEIMAN: Mr. Thomas, do you have much
- 23 more to go? I'm not asking because I want to limit you --
- MR. THOMAS: Yeah, I --
- 25 CHAIRMAN GLEIMAN: In any way.

MR. THOMAS: Yeah, I have a bit more to go. Do

- you want to take a break?
- 3 CHAIRMAN GLEIMAN: I think I'd like to take a
- 4 break now, and we'll come back at five minutes to the hour.
- 5 [Recess.]
- 6 CHAIRMAN GLEIMAN: Mr. Thomas, you can proceed
- 7 whenever you are ready.
- 8 MR. THOMAS: Okay, thank you.
- 9 BY MR. THOMAS:
- 10 Q We have been going over a number of decisions that
- were in effect made in the design and implementation of this
- 12 study. As you made these decisions, let me start with the
- initial decision, say, to break it into 20 strata, was that
- 14 a decision that you made on your own?
- 15 Was that submitted to someone within Christensen
- 16 for approval? Do you know whether it was submitted beyond
- 17 Christensen to the post office for approval?
- 18 A That was a decision made by Christensen
- 19 Associates.
- 20 Q And then the decision to in effect create 18
- 21 strata after you -- well, to collapse the 20 into three and
- 22 then to have -- to study two shapes and come up with these
- 23 18 cells, now that was a decision that you all made?
- 24 A Yes, it was.
- Q And that was not checked with the post office for

- 1 approval?
- 2 A It was discussed with the post office.
- 3 Q Who did you discuss it with?
- A As I said before, Witness Daniel was our point of
- 5 contact.
- 6 Q Was the strata -- were the decisions that you have
- 7 described here accepted or were any of them changed after
- 8 consultation with the post office?
- 9 A They were accepted.
- 10 Q On page 3 in I think the first paragraph there of
- 11 LRH-195 again, you state that -- well, the question is why
- don't volumes by entry discount represent the degree of
- 13 presortation preparation? I don't understand why they
- 14 don't.
- 15 A I'm sorry, where are you?
- 16 O On page 3 at the top of the page, you suggest that
- 17 volumes by entry discount do not represent the degree of
- 18 presortation that you were looking for.
- 19 I quess there's two questions that stem out of
- 20 that. One is why don't -- what were you looking for and why
- 21 doesn't that information provide it?
- 22 A Well, we were looking at mail preparation and
- 23 presorting of packages, bundles and containers, tray sacks
- 24 and pallets. We were not, the survey was -- those were the
- 25 important characteristics we were looking at and so we did

1 not consider the percent of the transaction or the

- 2 transactions in this post office that were going to be
- 3 destination entered relevant to those kinds of
- 4 characteristics.
- 5 Q Because there were discounts based on --
- 6 A On transportation.
- 7 Q Transportation costs? That is what you were --
- 8 A Right. Not on mail makeup.
- 9 Q Again, on page 3 in the second paragraph, you
- indicate a concern about the relationship, this trend
- 11 between billing determinants by size of post office, but you
- 12 note they were not strong.
- The data do not show strong trends between billing
- 14 determinants by office size. What is the relevance of that?
- 15 Why is that important?
- 16 A Well, we are trying to separate the 20 office
- 17 sizes into a smaller number of strata and if there was a
- 18 clear break in some of these characteristics that we had
- 19 talked about before, then we would perhaps draw a line and
- 20 separate a stratum there.
- 21 O And the fact they didn't meant you had more
- 22 discretion as to where to put this line?
- 23 A Or to not put one at all.
- 24 Q Well, this sort of does lead to the next question.
- 25 Down at the bottom of that section in the next-to-last full

1 paragraph on page 3, there is suddenly a reference to four

- 2 strata, but in fact only three are described there.
- 3 Was there at one point a fourth strata?
- 4 A I'm sorry, I don't see that.
- 5 Q In the paragraph above the words Revenue Controls,
- 6 it says the horizontal lines in Table 2 show where the 40
- 7 strata are collapsed into three strata. The fourth strata
- 8 are transactions --
- 9 A Oh. No, that is a typo.
- 10 O There were never four stratas?
- 11 A There were never four strata. There was three
- 12 strata.
- 13 Q Now the non-PERMIT and by that -- when I say
- 14 PERMIT here I am talking about that wording all in caps --
- and BRAVIS offices, the ones that don't have that system are
- 16 the smaller post offices? Is that correct?
- 17 A Yes, typically, by and large.
- 18 Q Why is it safe to simply ignore the smaller post
- 19 offices?
- 20 A I did not ignore them.
- 21 Q Oh, I thought you did.
- I thought that the last strata was dropped, I
- 23 thought, or the last group was dropped.
- Well, if you didn't, you didn't. Okay.
- I guess the last -- what I really wanted to

over was the sources of some of this data in the tables.

- 2 Did all of the data in Table 1 come from the
- 3 PERMIT system, again in caps?
- 4 A I think that the BRAVIS system was also still in
- 5 place for part or most of '96. So, I think that the BRAVIS
- 6 system was used, as well. It provides the exact same kind
- 7 of information. So, it's --
- 8 Q Yes, I understand, but you think that they're both
- 9 in here, not just the PERMIT system data.
- 10 A Yes. If the BRAVIS system does, indeed, exist,
- 11 then it is in here.
- 12 Q Okay. And the fiscal year revenue in Table 3 --
- is that government fiscal year revenue for '96?
- 14 A I believe that it's postal year revenue.
- 15 Q That's postal. But it was '96.
- 16 A Yes.
- 17 O Where did the data on Table 4 come from, the
- 18 expectation -- expected transactions -- how did you know how
- 19 many transactions to expect, and where did you get that
- 20 data?
- 21 A From the PERMIT data, the PERMIT and BRAVIS data.
- 22 Q Now, in Table 5, that is not information that
- 23 comes out of PERMIT or BRAVIS, is it?
- 24 A This is the first table, our results from the
- 25 actual --

- 1 Q These are your tabulations?
- 2 A Yes.
- 3 Q From the study?
- 4 A From the actual survey data.
- 5 O And that's, then, true on 6, as well, and all of
- 6 the rest of this -- these tables.
- 7 A That's correct.
- 8 Q In Library Reference 105, you include a paragraph
- 9 describing the first of two simplifications in the
- 10 stratification made for the Neyman allocation. This was not
- done -- this simplification was not described in Library
- 12 Reference LR H-195. That apparently wasn't done. Why was
- 13 that not done?
- 14 A Are you looking at page four?
- 15 O I believe it's on page four. It may be earlier.
- 16 A Page four, second-from-the-bottom paragraph, two
- 17 simplifications in the stratification?
- 18 Q In 105, yes.
- 19 A Okay. And could you repeat the question?
- 20 Why was the first of the two simplifications done
- 21 in H-105 not done in H-195 since the two studies were
- 22 essentially similar?
- 23 A In 105, regular rate -- let me read the paragraph
- 24 again.
- In regular rate, there is a very large share of

pieces in that stratum, greater than 750,000 pieces, just

- 2 roughly, 2.1 million out of 10.6, according to Table 2.
- In non-profit mail, that largest mailing size
- 4 stratum isn't so important in share. So, it was not
- 5 important in non-profit in the sense that it was in regular
- 6 rate to go after that mail in a survey.
- 7 O At what point in time were you aware that this
- 8 simplification and this -- of this concern with the --
- 9 making sure that there was a sampling of the very largest
- 10 mailings in Library Reference 105?
- 11 Did you know that when you designed the study, or
- is it something that you learned as a result of the data
- 13 that you collected?
- 14 A It was during -- late in the design process. It
- was definitely before the survey was in the field.
- 16 Q What data did you use to make that determination?
- 17 A The data on Table 2.
- 18 O That came from the PERMIT system?
- 19 A Yes.
- 20 Q PERMIT/BRAVIS?
- 21 A Yes.
- 22 Q While there may not have been as much in that very
- 23 highest bracket, was it not important in the non-profit
- 24 study to at least ensure that some very large mailings were
- 25 included?

1 A We define very large mailings as those over 60,000

- 2 pieces.
- Q Okay. Do you have any variance? I mean what is
- 4 the -- is that -- how many mailings more than 60,000 pieces
- 5 do you think there are?
- 6 A The data on Table 2 would tell you how many pieces
- 7 there are in mailings.
- 8 Q In mailings that are over 60,000.
- 9 A Well, the line is at 60,000, and you can see that,
- in all those cases, the largest mailing size does not have,
- by far and away, like it does in non-profit, a significant
- share in where we drew the line.
- 13 Q Let me see. You're saying that -- are you looking
- 14 at the last number on the lefthand column, total pieces?
- What tells me in here how many pieces there were in mailings
- larger than 60,000? I'm sorry.
- 17 A In the righthand column, total pieces, there's a
- solid line between 50 to 60 and 60 to 70.
- 19 Q Right.
- 20 A In the righthand column, the sum of all those
- 21 numbers --
- Q Yes.
- 23 A -- would give a relative indication versus the
- 24 total as to how many pieces there are in transactions over
- 25 60,000.

1 Q It looks pretty substantial as a percentage of the

- 2 total to me, you don't think it is?
- 3 A That what number is a significant percentage?
- 4 Q All of those added together. The ones --
- A All of those added together, yeah, that's one of
- 6 our main strata.
- 7 Q Obviously, I don't understand something. It
- 8 seemed in 105 you wanted to make sure that there was
- 9 adequate sampling at this high end but in this -- in the
- 10 non-profit study, you didn't --
- 11 A In 105, we do an additional line after 500,000.
- 12 Table 2 of 105 shows that we do an additional
- 13 stratum for transactions over 500,000. And we did not do
- that in the non-profit in 195 because the share of pieces
- over 500,000 in non-profit is not significant in our
- 16 opinion.
- 17 MR. THOMAS: All right. I think that's all I
- 18 have.
- 19 CHAIRMAN GLEIMAN: Is there any followup?
- 20 Ouestions from the bench?
- [No response.]
- 22 CHAIRMAN GLEIMAN: I have a couple of questions
- 23 that maybe you could help me with. I understood you earlier
- on to say that you hoped to achieve low standard errors and,
- obviously, this is a pretty laudable objective. What do you

- 1 mean by low?
- THE WITNESS: When you design a survey like this,
- 3 there are constraints to -- you know, it would be nice to go
- 4 out and collect as much data but data collection is very
- 5 expensive and the objective here was to improve upon
- 6 previous surveys by collecting more data. But my best
- 7 understanding is what we have done and we have reported the
- 8 standard errors of all these estimates and for -- generally,
- 9 if you look at those standard errors, they are reasonable
- 10 from what you would expect from a survey of this size and
- 11 this expense.
- 12 I personally think that these standard errors are
- 13 sufficiently tight enough, low enough, to make the -- to
- make the entire estimates reliable. But they are presented
- 15 here for other people to see.
- 16 CHAIRMAN GLEIMAN: So I can conclude then that the
- 17 standard errors that you achieved in this study would fit
- 18 your definition of low?
- 19 THE WITNESS: Yes, sure.
- 20 CHAIRMAN GLEIMAN: I may be a little bit confused
- 21 about some part of the cross-examination that took place
- 22 earlier on. Mr. Thomas was asking you about the size of the
- 23 sample and there were 750,000 pieces and the question had to
- 24 do with whether one additional tally or transaction would
- 25 make a difference in terms of the fit. And if I understood

1 you correctly, you said that one additional tally would make

- a difference only if that additional tally were clearly
- 3 representative of all the other transactions that weren't
- 4 included in the sample.
- 5 Did you say something to that effect?
- 6 THE WITNESS: If I recall, what I was saying is
- 7 that in any stratum, if the population is very uniform with
- 8 very low variability, you do not need very many sample
- 9 points to characterize that group.
- 10 CHAIRMAN GLEIMAN: Are there circumstances
- 11 where -- are you aware of any situation where the
- variability in a given category is so small that a single
- 13 tally might be representative?
- 14 THE WITNESS: No. I mean, generally, it's not in
- a case like this. That's why we are going after as many
- 16 tallies as we can.
- 17 CHAIRMAN GLEIMAN: Now, let me switch gears to
- 18 another area. You were talking with Mr. Thomas about the
- 19 stratification and the stratification was done by revenue.
- 20 If I understood correctly, for permit imprint the trial
- 21 balances were used as a source of data.
- THE WITNESS: Yes.
- 23 CHAIRMAN GLEIMAN: And that for stamped and
- 24 metered, you used revenue as reported by BRAVIS and by the
- 25 metered system?

1 THE WITNESS: There were two estimates, there were

- 2 two sources needed for the stamped and metered.
- 3 CHAIRMAN GLEIMAN: They were?
- 4 THE WITNESS: For the PERMIT and BRAVIS offices
- 5 that use that, those systems, their data was used. For the
- 6 non-PERMIT and BRAVIS systems offices, an estimate was made.
- 7 CHAIRMAN GLEIMAN: All right, now, when you're
- 8 using the PERMIT, BRAVIS or the estimate in the case where
- 9 you've got an office that doesn't carry out those functions,
- 10 are you talking about the number -- is revenue measured by,
- 11 for example, how much revenue is bought for a meter is
- 12 reloaded?
- 13 THE WITNESS: No. This is revenue charged against
- a meter at the time of the acceptance of the mail.
- 15 CHAIRMAN GLEIMAN: Okay.
- So there is a relationship then in that case
- 17 between volume and revenue? A direct relationship?
- 18 THE WITNESS: A direct relationship.
- 19 CHAIRMAN GLEIMAN: Okay. In the case of the
- 20 surrogate for the offices that don't have meters, how did
- 21 you develop the number for stamped? Is it the number of
- 22 stamps sold or is it the amount of stamped mail that comes
- 23 through?
- 24 THE WITNESS: The data that you're referring to
- 25 that we did not have is the stamped and metered revenue from

offices that don't use the PERMIT and BRAVIS data collection

- 2 for their postage statements. Those were estimated by
- 3 looking at those offices' permit imprint revenues from the
- 4 trial balance which we do have.
- A ratio was established depending on which stratum
- 6 each office fell in, we formed a ratio of the permit and
- 7 BRAVIS offices where we had all the data, we looked at their
- 8 ratio of permit imprint to metered and stamped revenue and
- 9 applied that ratio to the non-PERMIT and BRAVIS offices'
- 10 permit imprint revenue.
- 11 CHAIRMAN GLEIMAN: Okay. I have no further
- 12 questions. Are there other questions from the bench?
- [No response.]
- 14 CHAIRMAN GLEIMAN: If not, that brings to
- 15 redirect.
- 16 Would you like some time with your witness, Mr.
- 17 Alverno?
- 18 MR. ALVERNO: Please, Mr. Chairman.
- 19 CHAIRMAN GLEIMAN: Ten minutes?
- MR. ALVERNO: Thank you.
- 21 [Recess.]
- 22 CHAIRMAN GLEIMAN: Mr. Alverno, are you prepared
- 23 to continue?
- MR. ALVERNO: Yes. Thank you, Mr. Chairman. We
- 25 do have some redirect.

1	CHAIRMAN	GLEIMAN:	Please	proceed?

- 2 REDIRECT EXAMINATION
- BY MR. ALVERNO:
- 4 Q Dr. Talmo, you were asked several questions during
- 5 cross examination by counsel for ANM regarding the
- 6 stratification procedures of the Library References H-105
- 7 and H-195.
- 8 Do you have an opinion on the importance of the
- 9 strata delineation in Tables 1 and 2 of Library References
- 10 H-105 and H-195 to the results in those studies?
- 11 A Yes. The exact position of the lines that were
- 12 used to delineate the strata has a relatively unimportant
- 13 effect on the overall results.
- One reason is that, if the lines are drawn
- 15 somewhat differently, then different transactions, survey
- 16 transactions, are -- have a slightly different weighting in
- 17 the inflation process, and that's just what it means. The
- 18 relative weighting of the transactions is slightly changed,
- 19 so the overall impact of changing these lines is slight on
- 20 the overall results.
- 21 On the other side, the importance of -- that
- 22 actual data was collected is by far what is driving the
- 23 results in that we collected data on -- I think, in regular
- 24 rate, like -- we collected tallies on a half-a-million
- containers and, in non-profit, something like a

1 quarter-of-a-million containers, and it's that large amount

- of what I would characterize as good data that gives the
- 3 credibility and the reliability of the results of the
- 4 survey.
- 5 Q Okay.
- Dr. Talmo, you were also asked several questions
- 7 about the mail characteristics study for non-profit mail
- 8 that was conducted for Docket No. MC96-2. When were data
- 9 collected for that study, approximately?
- 10 A I think in the sense that it was -- that docket
- 11 was for reclassification, so the information was collected
- in an environment before reclassification for non-profit.
- 13 Q And what operating environments are reflecting in
- 14 the studies in LR H-105 and LR H-195?
- 15 A The data were collected from transactions that
- 16 occurred after postal reclassification.
- 17 Q Okay. And do you have an opinion on whether the
- 18 studies in LR H-105 and 195 are superior to or should be
- 19 used in lieu of the study that was conducted for mail
- 20 characteristics in Docket No. MC96-2?
- 21 A The data in H-195 and 105, etcetera, were
- 22 collected after reclassification, and I believe that those
- 23 are the data that should be used, and these surveys should
- 24 be used in lieu of the previous study, because mailing
- 25 requirements have changed, and to my understanding, the

1 Postal Service needs to model the costs in this postal

- 2 reclassification -- under the new mailing requirements.
- 3 Q So, in other words, the mail make-up that mailers
- 4 now present in the post re-class environment has changed
- 5 from the time that data were collected for the mail
- 6 characteristics study in Docket No. MC96-2.
- 7 A Yes. The reclassification required mail make-up
- 8 changes, and it's under that operation environment that the
- 9 costs need to be developed.
- 10 MR. ALVERNO: We have nothing further. Thank you.
- 11 CHAIRMAN GLEIMAN: Is there any recross?
- [No response.]
- 13 CHAIRMAN GLEIMAN: There is no recross, nothing
- 14 further from the bench.
- That being the case, I want to thank you, Dr.
- 16 Talmo. We appreciate your appearance here today and your
- 17 contributions to our record. If there's nothing further,
- 18 you're excused.
- 19 [Witness excused.]
- 20 CHAIRMAN GLEIMAN: That concludes today's hearing.
- 21 We'll resume tomorrow, Thursday, December the 4th, and hear
- 22 from Postal Service Witnesses Crum and Degen.
- Thank you, and you all have a nice afternoon.
- 24 [Whereupon, at 11:53 a.m., the hearing was
- recessed, to reconvene at 9:30 a.m., Thursday, December 4,

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